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ABSTRACT

A study investigated the relationships between selected student characteristics and measures of perceived campus and Vocational Resource Educator (VRE) support service satisfaction by postsecondary handicapped populations in three Missouri community colleges. Characteristics included length of stay in school, academic achievement, handicapping conditions, and usage of support services. Eighty-three students completed the Environmental Satisfaction Instrument, from which data were analyzed using the Pearson product moment correlation coefficient and the Chi square test of independence. Results indicated there were (1) significant correlations between the length of stay and programmatic factors (course content, teaching, and relevance to career); (2) significant correlations between students' achievement and their satisfaction with factors of campus friendliness, cultural opportunities, and extracurricular activities; (3) no significant relationships between students' identified handicapping condition and perceived satisfaction with campus environments and support services; and (4) significant correlations between usage of specific services and satisfaction with campus environments. Higher achievement was related to decreased satisfaction with these VRE services: instructional, counseling/career exploration, and consumer. Usage of and satisfaction with support services showed significant positive correlations. (The instrument is appended.) (YLB)

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# Post Secondary Persistence Study

ED220611

A Validation of the VRE Model at the Postsecondary Level:
A Study of Institutional/Environmental Factors and
Utilization of Services Related to Persistence of
Handicapped Students

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## Final Report

June 30, 1982

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# CHAPTER I

## INTRODUCTION

Within the past decade increasing numbers of individuals have enrolled in American institutions of higher education. Historically, many of these students would have been denied access to postsecondary education because of specified or unspecified limitations. These limitations included educational preparation, academic records, ethnicity, socio-economic status, sex and age as well as hidden or observable handicapping conditions. In order to accommodate diverse students, both public and private institutions have implemented special and supportive programs. These programs were designed in response to the demand to provide successful postsecondary educational experiences for the heterogeneous population of students with needs and characteristics different from those pursuing postsecondary education in the past.

Included in this growth and development has been the proliferation of innovative and special programs for handicapped individuals. The expansion of programs to include handicapped students was primarily the result of federal legislation; the Education of All Handicapped Children Act (P.L. 94-142), the Vocational Education Amendment of 1976 (P.L. 94-482) and Section 504 of the Rehabilitation Act of 1973. A recent national survey of services and programs available to the handicapped in five hundred (500) two and four year colleges found a wide range of services (President's Committee on Employment of the

Handicapped, 1977). While services for handicapped students have existed at all levels of postsecondary education, most analyses of current programs indicated that a majority of handicapped students were enrolled at the two year public community college level (AHSSPPE, 1980, NACUBO, 1981).

## Statement of the Problem

### Programs for Handicapped Students

Programs for handicapped students, on community college campuses, have been in development for almost two decades (Reid, 1979). The recognition of nontraditional populations' need for access to education has been one of the targets of community college educators as they have attempted to fulfill their mission to serve the total community. The expansion of services for handicapped students presents two logical questions; 1) what factors are related to the satisfaction of handicapped students and, 2) what services offered through special programs are most essential to handicapped students.

The majority of handicapped students in the United States access higher education through the public community college (AHSSPHE, 1980; NACUBO, 1981). Karabel (1973) reported that fully one-third of all students entering higher education did so through two year schools; in California, that figure rose to 80 percent. In fact, due to their community based nature, two year public institutions have attracted greater numbers of students with handicaps than did all other types of institutions (AHSSPPE, 1980). Since the highest percentage of open admissions institutions in postsecondary education are community

colleges, it is not surprising that these institutions were the first to confront the need for handicapped students' programs (Grant and Hoeber, 1978).

There is agreement among providers of services to handicapped students regarding programmatic delivery (Byron and Becker, 1980; Stanhouse and Yates, 1980; Reid, 1979; Boukouvalas and Gay, 1979; Bevilacqua and Osterlink, 1979; Harkins, 1978). They suggested that the first efforts focus on integration with the existing college program and that all activities and services available to the general college student must also be available to handicapped students. They have suggested that necessary services include academic and career advising, vocational planning and placement, accessible facilities and housing, adapted educational materials, transportation assistance, on campus aides or attendants and equipment loan and/or repair (Byron and Becker, 1980).

## Representation of Handicapped in Community College Programs

Handicapped students are grossly underrepresented in postsecondary education. A major national survey of all freshmen (President's Committee for Employment of the Handicapped, 1978) reported that 2.6% of all beginnning freshmen were physically disabled. However, 8.1% of the population of the United States between the ages of 16 and 25 are represented by the physical handicaps listed in the survey. The 8.1% is the expected prevalence rate offered by the Bureau of Education for the Handicapped, U.S.O.E. for similar handicaps in the 5 through 17 age category (President's Committee on Employment of the

Handicapped, 1977). In comparing the 2.6% figure with the 8.1% expected prevalence rate, it is evident that handicapped individuals are not adequately accessing postsecondary education. However, it is also true that a number of handicapped students have chosen not to access postsecondary education because they feel their needs for training cannot be met (Sprandel and Schmitz, 1980).

The handicapped student is relatively new to higher education and is often the recipient of state and federal dollars in the form of specialized support services. These dollars are spent in order to increase students' probability of success and ability to persist in the academic environment. Since persistence/attrition has long been of interest to educators involved in postsecondary education, the inclusion of the growing number of handicapped students creates an even more complex problem in terms in students' characteristics, interaction with the environment and supportive services offered to the student through special programming.

## Persistence

Persistence is the measure of a student's ability to "maintain" within the academic environment. It is a function of individual student characteristics, i.e., goals, family support, motivation and the environment within a specific institution. An individual student brings certain skills to various environments. Often the student's educational background is a prerequisite for an academic future. In order for a student to be successful in the college environment, he/she must possess the skills to fulfill the requirements of the environment. With the appropriate skills, the environment is rewarding; with

inappropriate skills, the environment is devastating and the probability of withdrawal is increased (Starr, Betz, and Menne, 1972).

Satisfaction is related to persistence (Danuser, 1978). According to Beelick (1973) it was related to achievement, recognition, school activities and interesting work. It was found to have a positive effect on students' school performance, personalities and attitudes towards school. Starr, Betz and Menne (1972) studied college students' satisfaction. They found that non dropouts were most satisfied with their environment, followed by dropouts with passing grades and finally by dropouts with inadequate grades. They measured satisfaction through the dimensions of academic aspects and feelings of personal worth.

Handicapped students, in particular, must receive additional supportive services if they are to persist and succeed within the academic or mainstream environment. Whitten (1977) suggested that specialized support services be maintained throughout the handicapped students' academic experience.

## Missouri's Response

Since 1979 the Missouri Department of Elementary and Secondary Education has recognized the need to provide handicapped students enrolled in community colleges, with a system of service delivery designed to increase student satisfaction and encourage persistence toward a specified vocational goal. The model resulting from the need has been designated as the Vocational Resource Educator (VRE) Model, a professional educator responsible for providing supportive services to the handicapped student enrolled at the community college. The VRE is charged with a variety of functions which include direct

counseling; brokering services, i.e., interpreters, readers, note takers, providing resource support for direct instruction and maintaining community and agency liaison. Agencies with which the VRE frequently interacts include the Bureau for the Blind and the Department of Vocational Rehabilitation. The overriding responsibility of the VRE is, however, to maximize vocational options while encouraging the satisfaction/persistence of handicapped students in the educational environment.

## Purpose of the Study

Because information related to the satisfaction and persistence of handicapped students enrolled in community colleges in Missouri is limited, it is imperative to study the problem. To date, an analysis of handicapped students' satisfaction with (1) selected factors in the campus environment; (2) school in general and (3) specialized support services provided by the Vocational Resource Educator has not been undertaken. It is important to begin the process of developing information in response to questions raised by administrators and support personnel regarding handicapped students' differential satisfaction with and utilization of those support services.

The intent of this research is demonstrated in Figure 1. This model has been constructed to indicate the relationships among students' lengths of stay at a particular educational institution; achievement as measured by GPA; self identified handicapping conditions; and usage of services provided by the Vocational Resource Educator with satisfaction with selected factors in the campus environment; school in general;

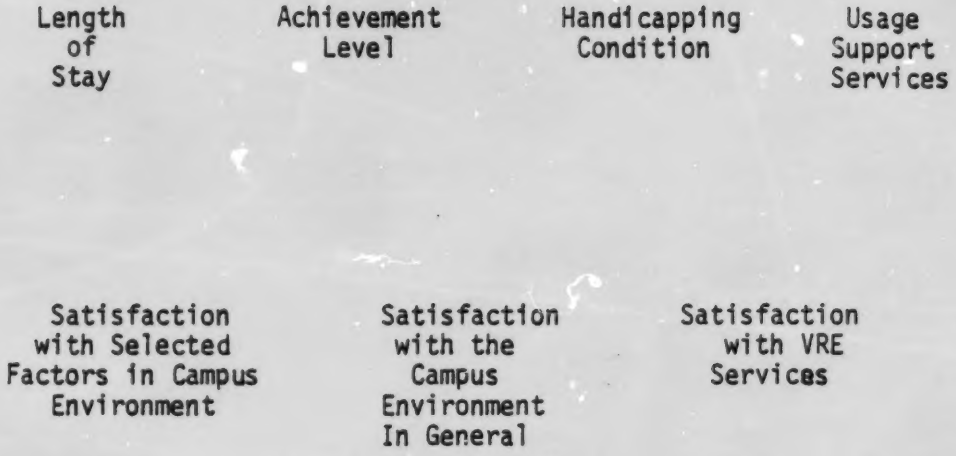
Length of Stay
Achievement Level
Handicapping Condition
Usage Support Services
Satisfaction with Selected Factors in Campus Environment
Satisfaction with the Campus Environment In General
Satisfaction with VRE Services

Figure 1: Relationships among students' lengths of stay, GPA, handicapping condition and usage of VRE support services with three levels of satisfaction.

and specialized services provided by the Vocational Resource Educator. The purpose of this study, then, is to provide administrators, educators and decision makers with specific information regarding the postsecondary handicapped student, with special consideration to campus factors and supportive services identified as most satisfactory and useful.

## Research Questions

1. Is there a relationship between handicapped students' length of stay at specified community colleges in Missouri and their perceived satisfaction with selected factors in the campus environment?

2. Is there a relationship between handicapped students' achievement, as measured by GPA, and their perceived satisfaction with selected factors in the campus environment?

3. Is there a relationship between students' identified handicapping conditions and their perceived satisfaction with selected factors in the campus environment?

4. Is there a relationship between handicapped students' usage of VRE support services and their perceived satisfaction with the campus environment in general?

5. Is there a relationship between handicapped students' length of stay at specified community colleges in Missouri and their perceived satisfaction with VRE support facilities?

6. Is there a relationship between handicapped students' achievement as measured by GPA, and their perceived satisfaction with VRE support services?

7. Is there a relationship between students' identified handicapping conditions and their perceived satisfaction with VRE support services?

8. Is there a relationship between handicapped students' usage of VRE support services and their perceived satisfaction with those specialized services?

## Independent Variables

There are four independent variables explored in this study. They included students' (1) length of stay, i.e., number of semesters enrolled; (2) indicators of academic achievement as measured by grade point average (GPA); (3) self identified handicapping condition, i.e., visually impaired, hearing impaired, learning disabled, orthopedically handicapped and other health impaired; and (4) usage of the services provided by the Vocational Resource Educator.

## Dependent Variable

The dependent variable in this study was student satisfaction which consisted of three levels. The first level measured students' perceived satisfaction with selected factors in the campus environment through the Environmental Satisfaction Instrument, adapted from Bower and Meyers (1976). The second level measured students' perceived satisfaction with school in general through item 27 of the Environmental Satisfaction Instrument adapted from Bower and Meyers (1976). The third level measured students' perceived satisfaction with the specialized support services provided by the Vocational Resource Educator, through Part D, a component added to the Environmental Satisfaction Instrument.

## Definition of Terms

1. HANDICAPPED: Those students evaluated as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other

health impaired, deaf-blind, multi-handicapped, or as having specific learning disabilities, who because of those impairments need special education and related services (Missouri DESE definition).

2. HEARING IMPAIRED: There are two types of hearing impairment to be considered. They are:

   HARD OF HEARING: Those students whose hearing is impaired to the extent that language, social, and/or academic development is restricted to a significant degree educationally, but who is not eligible for placement in classes for the deaf. Generally, students who are eligible for placement in classrooms for the hard of hearing exhibit hearing loss in a range from 40 dB to 60 dB (ISO), and such students may profit from preferential seating in the classroom with teacher assistance.

   DEAF: Those students with no hearing or limited residual hearing sensitivity which is not sufficient to enable understanding of spoken language nor to develop language successfully even with a hearing aid without specialized instruction (Missouri DESE definition).

3. ORTHOPEDICALLY HANDICAPPED (OH): Those students who have conditions such as cerebral palsy, spina bifida, muscular dystrophy, congenital defects (such as hydrocephalus, club feet, heart conditions), and adventitious defects (such as poliomyelitis, rheumatoid arthritis, osteomelitis, hydrocephalus), and other physical defects in varying degrees requiring special adaptation and modification of school facilities and equipment (Missouri DESE definition).

4. OTHER HEALTH IMPAIRED (OHI): Limited strength, vitality or alertness due to chronic or acute health problems, which adversely affect a student's educational performance. These may include any health problem which temporarily or permanently necessitates modification of the school program. Several examples are: Diabetes, respiratory disorders such as allergies, frequent infections, asthma, nephrosis, a degenerative kidney condition, osteomyelitis, spreading inflammation of the bone and heart defects.

5. LEARNING DISABLED (LD): Those students who have a disorder in one of more of the basic psychological processes involved in understanding or using language, spoken or written. It may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term does not include students who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental cultural, or economic disadvantaged (Missouri DESE definition).

6. VISUALLY IMPAIRED (VI): There are two types of visual impairment to be considered. They are:

   PARTIALLY SEEING: Those students whose visual acuity is so limited as to require specific educational compensation of a significant nature in order that the learning needs of the student can be adequately met by the school district. As a general rule, the partially-seeing student evidences a central visual acuity range of 20/70 to 20/200 in the better eye with best correction by glasses.

BLIND: Those students whose visual acuity is so limited as to require a comprehensive educational program involving compensatory services including but not limited to large print materials, utilization of recorded materials, mobility training, developmental braille skills and self-help and daily-care skills development. Legal blindness is generally characterized by a visual acuity of 20/200 or less in the better eye after best correction by glasses or peripheral vision subtending an angle not greater than twenty degrees (Missouri DESE definition).

7. CAMPUS ENVIRONMENT: The complex atmosphere/identity or personality of a particular institution which includes: teaching/learning; contact/direction; faculty/staff/student relations; scholastic atmosphere; cultural atmosphere; social atmosphere; institutional process; financial support; and institutional attributes (Danuser, 1978).

8. VOCATIONAL RESOURCE EDUCATOR MODEL (VRE): A service delivery plan, complimented by a professional educator holding a position supported by state level funding through the Missouri Department of Elementary and Secondary Education. Responsibilities include the development and implementation of a comprehensive service delivery program of support to handicapped students enrolled in community colleges, vocational-technical centers, and high schools with programmatic emphasis on vocational/career education. Services may include: counseling, placement, brokering for interpreting, notetaking, tutoring and instructional modification. Specific services provided are listed by institution.

INSTITUTION 1

9. LEARNING CENTER: An individualized remedial and developmental resource center designed to provide students with academic support.
10. INSTRUCTIONAL MODULES: Individualized, self contained, self paced remedial and developmental modules used within the Learning Center program.
11. CAREER AWARENESS: A series of small group and individualized sessions designed to acquaint students with career options and opportunities.
12. JOB PLACEMENT: A service designed to provide job placement assistance to students who have completed a program within the occupational division.
13. VOCATIONAL COUNSELING: Services which include personal, social, and academic counseling related to the student's vocational choice.
14. TUTORS: Individuals either peer or paraprofessional, enlisted to provide assistance in a particular subject.
15. VOCATIONAL EVALUATION CENTER: A center designed to provide comprehensive vocational assessment through a variety of activities, i.e., standardized testing; work sample; interviews; and hands on activities.

INSTITUTION 2

16. ACCESS: The advocacy group designed for handicapped students.
17. SELF DIRECTED LEARNING PROGRAM: Courses within the regular curriculum specially arranged to meet learner needs, i.e., a

course offered to a student in a hospital setting. The arrangement is between the student and instructor.

18. VOCATIONAL COUNSELING: Services which include personal, social and academic counseling related to the student's vocational choice.
19. EQUIPMENT MODIFICATION: The process of altering or adapting equipment, i.e., typewriters, drafting tables; sewing machines; microcomputers, etc. to increase accessibility for handicapped students.
20. INSTRUCTIONAL MODIFICATION: The process of altering or adapting instruction to increase individualization.
21. NOTETAKERS: Individual students who take notes in class and provide copies to handicapped students. NCR notetaking paper is made available.
22. TUTORS: Individuals either peer or paraprofessional, enlisted to provide assistance in a particular subject.
23. TEST ARRANGEMENT: A service which provides students with testing alternatives, i.e., readers, writers, typewriters, alternative locations, etc.
24. PERSONAL ASSISTANCE THROUGH NURSE'S OFFICE: Toileting, feeding and emergency care.

INSTITUTION 3

25. COMMUNICATIONS I, II: Special classes for hearing impaired students designed to improve vocabulary and writing skills.
26. CAREER EXPLORATION: Classroom activities designed for the exploration of job opportunities.

27. JOB PLACEMENT: Services which include: resume classes; assertiveness training; interview arrangements; cooperative placement; assistance in seeking changes in employment.

28. VOCATIONAL COUNSELING: Services which include personal, social and academic counseling related to the student's vocational choice.

29. NEW STUDENT ORIENTATION: A service which includes vocational exploration, counseling and assistance in the admissions and registration process.

30. EQUIPMENT MODIFICATION: The process of altering or adapting equipment, i.e., typewriters, drafting tables; sewing machines; microcomputers, etc. to increase accessibility for handicapped students.

31. INSTRUCTIONAL MODIFICATION: The process of altering or adapting instruction to increase individualization.

32. INTERPRETERS: Certified individuals responsible for translating oral lectures and class discussion to hearing impaired individuals through a combination of fingerspelling, sign language and oral interpretation.

33. NOTETAKERS: Individual students who take notes in class and provide copies to handicapped students. NCR notetaking paper is made available.

34. READERS: Individuals who assist visually impaired or learning disabled students by reading text books, notes and tests.

35. TUTORS: Individuals either peer or paraprofessional, enlisted to provide assistance in a particular subject.

36. WRITERS: Individuals who assist visually impaired, orthopedically handicapped and learning disabled students in writing tests.

## Limitations of the Study

The results of this study are not generalizable except to the population consisting of handicapped students enrolled at the three community colleges in Missouri which have provided special support services since 1979. It is important to note that 53% of the population enrolled at Institution 3 consisted of hearing impaired individuals. This represents a sizable and somewhat unusual proportion of a low incidence handicapping condition. Caution should be exercised in the generalization of the findings to other postsecondary institutions. Additionally, the study is limited by the validity and reliability of the instruments.

# CHAPTER II

# REVIEW OF RELATED LITERATURE

The purpose of this chapter is to document the relevant literature in the areas of (1) support programs for handicapped students enrolled in postsecondary education and (2) student persistence and satisfaction. The professional literature contains numerous research studies related to student persistence and satisfaction. The studies when grouped according to student characteristics, institutional characteristics and person environment interaction reflect consistency in the relationship between student satisfaction and persistence.

Similarly, studies of handicapped students enrolled in post-secondary education reflect constancy among workers. The first section of this chapter provides descriptions of support services for handicapped students. Studies related to special programming, services offered and the need for such services are reviewed. In the next section studies gathered from the more general body of literature related to persistence and satisfaction are reported.

## Conceptual Framework for the Study of Satisfaction of Handicapped Students

In order to build a conceptual framework for the study of handicapped students' satisfaction with the college environment and supportive services as related to persistence, it is helpful to look at the literature describing the need for and design of programs for the handicapped.

Student services personnel have long been committed to the concept of maximal personal, vocational and educational development for every individual. Tusher and Fox (1971) reported that handicapped students have become more prevalent on campuses during the 1970's. This is a result of encouragement of handicapped students by their rehabilitation counselors coupled with significant numbers of disabled Vietnam veterans who have chosen to seek postsecondary education. However, it is also true that a significant number of handicapped students have chosen not to attend postsecondary education because they do not believe that their needs can be met (Sprandel and Schmidt, 1980). Thus the need for special attention to this segment of the student population has become more necessary.

There is agreement among providers of services to handicapped students regarding programmatic delivery (Byron and Becker, 1980; Stanhouse and Yates, 1980; Reid, 1979; Boukouvalas and Gay, 1979; Bevilacqua and Osterlink, 1979; Harkins, 1978). They suggested that the first efforts focus on integration with the existing college program and that all activities and services available to the general college student must also be available to handicapped students. Given the situation where services provided to the general population do not meet the needs of the handicapped students, existing services must be expanded or additional services developed. There is consensus among these researchers that services include academic and career advising, and counseling, vocational planning and placement, accessible facilities, adapted educational materials, accessible housing, transportation assistance, on campus aides or attendants and equipment loan and/or repair (Byron and Becker, 1980).

McBee and Cox (1974) described three models for the delivery of services to handicapped students in higher education institutions: highly centralized, complete and direct programs; loosely coordinated programs; and highly coordinated, decentralized programs. A highly centralized program is located in a single building and its staff is totally committed to providing services to handicapped students. There is often little effort to use other campus staff members as part of the team providing services to handicapped students. In this model referral of students to other sources may not be necessary, depending on the extent of the funding. In the loosely coordinated program, there are few services planned within the central unit. A coordinator is the primary referral agent, and seeks to use services elsewhere on campus. In the highly coordinated, decentralized program, programs and services are developed to meet the needs of students and departments within that institutional setting are encouraged to develop resources that aid and serve handicapped students. Referrals from this unit to other departments within the institution as well as to services in the community are very common.

McBee and Cox (1974), Catoni (1961) and Cochrane (1965) have suggested that the philosophy underlying the development of student services for handicapped students is that individuals in our society have the right to achieve the level of education commensurate with their individual capabilities and that support programs are imperative to the students' success and persistence in the campus environment. Furthermore Condon (1957) in her 10 year study of physically handicapped students confirmed that postsecondary training is crucial to the career

development of the handicapped and that given the opportunity and training the handicapped person can compete successfully with his/her non handicapped peers.

This assertion is supported by Lerner and Martin (1955) who concluded that students with major physical handicaps can be helped to achieve satisfaction with the postsecondary experience if given suitable and adequate support services. Their identification of appropriate service is similar to those mentioned earlier in this section.

Special Programming

In order to maximize opportunities for persistence, special programming for handicapped students in community colleges should integrate appropriate support services within the larger college environment.

Need for support programs. According to the National Center for Education Statistics, two year colleges attract greater numbers of students with handicaps than do other types of institutions (AHSSPPE, 1980). This attraction is related to the community colleges' open door admissions policies which have led to tremendous diversity among the student population. Consequently, these institutions had to confront the need for support systems long before other postsecondary institutions (Grant and Hoeber, 1978). Maryland's Statewide Plan for the Delivery of Programs and Services to Handicapped Students (1979) outlines strategies for improving access to community college education for the disabled. Their current programs, architectural plans, attitudes, policies, and longrange plans are highlighted against the premise

that handicapped student enrollments will increase. The report outlined funding sources, projected enrollments, need for resource centers, auxiliary aids and facilities modification for the disabled population. A demographic needs information study was conducted in the California Community Colleges (Spencer, 1977). Over 4,600 disabled students were surveyed. The data indicated that financial burdens are a significant problem for handicapped students.

Rada (1975) supplied a core guidance curriculum for handicapped students at East Los Angeles College based on a survey of the literature on handicapped needs and existing programs at forty-seven California community colleges. Four minicourses were designed which centered around interpersonal relations, career guidance, introduction to college, and study skills. These minicourses were recommended as additional components in existing programs for handicapped students.

Handicapped college bound populations are continually surveyed to determine their needs within an educational framework (Rada, 1975; Spencer, 1977). The response by community colleges is to translate that input into programming and specific services for the handicapped (Maryland Statewide Plan, 1979).

Strategies for Program Design. The district and state reports submitted to ERIC relative to special programs for disabled students have increased in number. A major report by Tuscher (1977) outlined programs and services for students with communication, learning and physical disabilities, provides needs assessment documents, program development plans, offerings in 1977-78, evaluation, use of resources,

and inservice training for special education staff. Schmoeller and Kester (1977) presented a three-level model management and evaluation system for the Los Angeles Community College District program for the handicapped. The model addressed itself to local, district, and state needs and included educational philosophy, physical needs, facilities, goals, special teaching materials, mobility, transportation, budgets, costs, objectives, and evaluation procedures. Katz and Flugman (1977) presented the New York Institute for Research and Development in Occupational Education 1973-77. It is a report of conferences and workshops, reporting collaborative results between the institute and community college teams in response to the educational and occupational needs of disabled students. A variety of the conference activities focused on the needs of the handicapped relative to self awareness, consumer advocacy, need for support services, sensitizing faculty/staff and instruction in problem solving methodology. A state wide survey conducted in Arizona provided data on services available to hearing impaired students in the state's 15 community colleges (McElroy, 1979). Reid (1979) described the components necessary to design an exemplary program for the handicapped student in a community college setting. Her multi-faceted model included an orientation program, an assistance component (i.e., readers/writers) and a special services division (i.e., interpreters, readers, mobility assistants). An analysis of Kay (1980) identified four distinct types of services offered to students through handicapped student programs. These included provisions for student support in the following areas: academic, finance, emotional-social and physical services.

Specific resource materials are mentioned in reports of handicapped service programs. The Needs Assessment Package for Learning Resource Services to Handicapped and Other Disadvantaged Students provides techniques useful in assessing the materials and equipment needed to serve disabled students at two year colleges (Association of College and Research Libraries, 1978). An organized guide to serve as a ready-reference tool for teachers with deaf students in the classroom is provided by Goodman (1978). Specific technical assistance is offered, in addition to background information to held understand aurally impaired students' characteristics and special learning problems. Two different handbooks are available to provide those who counsel disabled students. They are Guidance Services for the Physically Disabled College Student (SUNY, 1978) and A Resource Handbook for Counseling the Physically Handicapped Student (South County Joint Junior College District, 1973). Both resources provide information concerning the role of financial aid office, health and placement offices, library, physical education departments and student government organizations.

The numerous strategies for program design prove the responsiveness of community colleges to the handicapped student. The management model described by Schmoeller and Kester (1977) and Reid's (1979) comprehensive service model have similar components. Both relate to the necessary services identified for the hearing impaired by McElroy (1979). Orientation, counseling, academic support, financial assistance and transportation are common factors to many special services programs (Khan, 1982).

Elements of Model Campus Programs

To make it possible for the handicapped to avail themselves of the opportunities for self-development in institutions of higher education, certain provisions are necessary. Kolstoe (1978) suggested a nine-point model which included:

1. A pre-enrollment campus orientation that allows the handicapped to get some sense of the obstacles to be encountered.
2. A Functional Training Week during which the kinds of support needed by the handicapped person, such as interpreters, reader services, special typewriters, and cassette recorders, can be determined.
3. A variety of housing options to allow the handicapped who need a great deal of assistance as well as those who need very little to manage their daily lives with the least inconvenience possible.
4. A system of transportation that allows the students access to campus, business, recreation, and social activities.
5. A recognition of the need for the elimination of barriers to the handicapped in the use of classrooms, telephones, parking, sidewalks, water fountains, and toilets.
6. An active program to improve community accessibility through surveys, accessibility guidebooks, and civic projects.
7. Empathetic counselors who can relate to academic, personal, emotional, sexual, and vocational rehabilitation problems.
8. College commitment in the form of financially supported administrative center or office of resources and a dynamic director.
9. An ongoing continuous appraisal of the effectiveness of all components of the program.

This model is quite similar to that suggested by Reed (1979) at DeAnza College in Cupertino, California. Similarly, programs designed for specific handicapping conditions also reflect a multi-component model. For example, programs for the hearing impaired provide special services to meet specific educational needs. Harkins (1978) reported four services most necessary for the services of the hearing impaired student. These included, in order of importance, interpreting, tutorial, and counseling support and notetaking services. As of 1976, 55 community colleges and universities were providing hearing impaired students with supportive services. Not all of the 55 programs offer the same kinds of services to their students (Rawlings, Trybus, and Biser, 1978). Thirty-six schools indicated that they coordinated a preparatory program for incoming deaf students. Fifteen programs reported that they did not have a special preparatory services and four indicated they offered orientation. The scope and content of the preparatory programs required that the students attend the preparatory program; in other instances attendance was an option left to the discretion of the student and faculty. The duration of the preparatory programs ranged from a few days to one year in length.

Table 1 provides additional information relative to the availability of 12 other special services considered important by the Council of Executives of American School for the Deaf (CEASD, 1973). They include: special classes for deaf students; interpreters in regular classes; tutoring services; notetaking services; social/cultural services; vocational placement services; speech and hearing services; manual communication training for instructors and supervised housing.

These services are designed to provide deaf students with a range of options necessary for success.

- Special classes for deaf students include specifically designed program related courses taught by instructors skilled in manual as well as oral communication.
- Interpreters in regular classes are available in classes where the instructor is not skilled in manual communication.
- Tutoring services are provided, as needed, whenever deaf students require content based support.
- Notetaking services are made available to assure that deaf students are provided with a set of notes for each class.
- Vocational development services include vocational assessment, information, and counseling.
- Personal counseling services are available to deaf students and are provided by personnel trained in counseling and skilled in manual communication.
- Social/cultural services are events and activities specifically targeted for deaf students.
- Vocational placement services include placement activities, pre-employment counseling and instruction, employer-contacts, and post employment follow-up.
- Speech and hearing services are responsible for diagnosing the communication abilities of entering deaf students and providing appropriate developmental strategies.
- Manual communication training for deaf students provides instruction in sign langa uage to those students who need to develop or improve their manual communication skills.

Table 1: Availability of special services for the deaf in postsecondary programs, 1978

| Special Services Coordinated by Programs for the Deaf | Total | Services Available | Services Not Available | Info Not Reported |
|---|---|---|---|---|
| Special Classes for Deaf Students | 55 | 34 | - | 1 |
| Interpreters in Regular Classes | 55 | 54 | - | 1 |
| Tutoring Services | 55 | 52 | 3 | - |
| Notetaking Services | 55 | 48 | 7 | - |
| Vocational Development Services | 55 | 49 | 6 | - |
| Personal Counseling Services | 55 | 51 | 4 | - |
| Social/Cultural Activities | 55 | 43 | 12 | - |
| Vocational Placement Services | 55 | 33 | 22 | - |
| Speech and Hearing Services | 55 | 25 | 30 | - |
| Manual Communication Training for Deaf Students | 55 | 45 | 10 | - |
| Manual Communication Training for Instructors | 55 | 43 | 12 | - |
| Supervised Housing | 55 | 20 | 35 | - |

(Adapted from Rawlings and Trybus, 1976)

- Manual communication training for instructors consists of classes in manual communication available to all instructors who regularly teach deaf students without the aid of an interpreter.
- Supervised housing consists of room and board provided for deaf students (Rawlings, Trybus, and Biser, 1978).

It is interesting to note in Table 1 that the sources most frequently provided include interpreting (54), tutoring (52), counseling (51), vocational development (49), and notetaking (48). With the exception of vocational development, these confirm Harkins' (1978) findings.

## Student Characteristics and Persistence

Characteristics of persisting and nonpersisting students have long been of interest to researchers. Although little is known about the handicapped student much information exists regarding the persistence patterns of the nonhandicapped student. Students persist in the academic environment for a variety of reasons.

Bucklin and Bucklin (1970) examined the personality of the persisting student as compared with the nonpersisting student and found that the persisting student tended to have the ability to attack a problem and stick with it, had a strong drive for success and achievement, had a sense of responsibility, was rather contented with the college routine, was conscientious, systematic and diligent in work habits, was autonomous in thinking and perception, was objective and had a certain strong resemblance to the environment. The persisting student's motivation and interests were highly related to success. Persisting students tended to have definite vocational plans, came from families

interested in higher education and came from families that encouraged the pursuit of higher educational goals and activities. Research by Ikenberry (1969) found several of the same characteristics of persisting students as did Bucklin and Bucklin.

Spady (1970) stated that students who aspired to finish college were more likely to see themselves through to graduation than those with more modest goals or those who did not have definite aspirations. He pointed out that high goals which were clear and realistic helped one to graduate.

Research on 54,000 Black students in New York City indicated that approximately two-thirds aspired to obtain a Bachelors or Masters degree and almost 90 percent were willing to work full time in order to stay in college. Over 80 percent of the students involved in the study noted that the reasons for attending an institution of higher learning were to learn more, to get a better job and to fulfill a need for college trained Black people (NSSFNS, 1972).

Rose and Elton (1969) investigated factors related to persisting and nonpersisting freshmen at the University of Kentucky. Those who withdrew but remaining in good academic standing, were more maladjusted, more hostile, and less interested in academic affairs than were persisters. Persisting students tended to more submissive to authority and convention than were nonpersisting students.

Rossman and Kirk (1970) found voluntary withdrawals were better oriented intellectually and had higher ability scores than persisting students at the University of California. Marks (1967) reported that persisting students were overly concerned with satisfying parental

expectations. They seemed to suffer anxiety and guilt feelings at the prospect of displeasing their parents and found difficulty in resolving conflicts between self and environment. Lehmann (1963) suggested that persisting in college was primarily dependent on an individual's intellectual ability. He added, however, that affective factors such as attitude, interest and motivation should not be overlooked.

Turner (1970) found a succinct difference between persisting and nonpersisting students:

> Persisters were more selective in choosing their colleges and saw more reasons for attending. They studied harder and were less prone to allow social life to interfere with their studies. They tended to be more intellectual, self-reliant and open-minded before entering college.

He reported that no great significance could be attached to differences in ability or socioeconomic status between the persisting and nonpersisting students. Turner's findings strongly suggested that persisting students entered college with the necessary predispositions for success.

Astin (1972) stated that nearly one-half of all students entering four-year colleges and universities could be classified as persisting students. The dropout rates, according to Astin, at two-year schools were somewhat higher than those of the four-year colleges. The major predictors of success and endurance in college were a student's grades in high school and scores on tests of academic achievement. Other important indicators included being male and a nonsmoker, having a high degree of aspiration at the time of college entrance, financial ability particularly on the part of helping parents, scholarships, personal savings and not being employed during the school year.

Trent and Medsher's (1968) landmark study of 10,000 students suggested that college persisters entered college with an attitudinal predisposition that enhanced their development in college; this disposition was not evidenced in dropouts. Their study also indicated that irrespective of ability and socioeconomic status, persisters (1) were more intent on attending and graduating; (2) were more selective in choosing their institution; (3) saw more reasons for attending college; (4) studied harder; (5) were less prone to allow social life to interfere with their studies; and (6) tended to be more intellectural, self reliant and open minded than were dropouts when they started college.

Another major longitudinal study was conducted by Astin (1975). More than 41,000 undergraduates who attended 358 two year and four year colleges and universities were surveyed. The results indicated that dropout prone freshmen had (1) poor academic records in high school; (2) low aspirations; (3) poor study habits; (4) relatively uneducated parents; and (5) were from small town backgrounds.

In general, the literature on student characteristics related to persistence shows similarity between community colleges and four year colleges and universities (Lenning, Beal and Sauer, 1980). There are some differences in the findings but the differences, as found by Astin (1973) are not pronounced. Actually many of the factors related to attrition are those over which the institution has little or no control (Lenning, Beal and Sauer, 1980).

It would be expected that students would leave community colleges more often for employment reasons. Two year community colleges that report employment as a major reason for withdrawing are Bucks County

Community College (1973) and Roane State Community College (Martin, 1975). Anderson (1967) focused on students who fulfill admissions requirements but fail to enroll at the beginning of the semester. Financial difficulties were given as the major reason for this behavior.

A number of community college studies have examined the personality characteristics and personal motivations of persisters and dropouts. Blai (1972) examined studies of Harcum Junior College and the Pennsylvania Department of Education, both of which suggested that strong personal motivation was a key factor favoring student persistence. Brawer (1973) reported that persisters were better able to delay gratification and tolerate ambiguity. Jaski (1970) reported that dropouts were less intellectually oriented than persisters.

## Institutional Characteristics Related to Student Persistence

Fewer studies have tried to relate persistence to institutional factors as compared to those focusing on student factors. The studies cluster into seven areas, however, which include the following institutional characteristics: (1) faculty-student interaction; (2) extracurricular activities; (3) counseling services; (4) employment; (5) campus size; (6) grading; and (7) full and part-time enrollment.

### Faculty-Student Interaction

A major hallmark of the theories of Spady (1971) and Tinto (1975) is the attention given to the relationships between students and the

relationship between students and faculty. These relationships were noted of primary influence in terms of retention. According to these researchers both the frequency (quantity) and the quality of the interactions with faculty appear important.

The various studies of Pascarella and Terenzini (1980; 1979) have highlighted the importance of frequent and positive student-faculty contact. Additionally, Noel (1976) and Schulman (1976) have cited the relationship between persistence and a "significant adult". Grites (1979) has proposed that colleges can stimulate an important increase in the number of students having significant adults on campus by selecting and training a number of special faculty advisors.

Extracurricular Activities

The research about the relationship between persistence and extracurricular activities has often been inconclusive. After reviewing the various findings Pantages and Creedon (1978) concluded that such activities were not a factor related to persistence. However, Everett (1979) found positive relationships between extracurricular activities and persistence.

Counseling Services

Many studies indicated that counseling services can increase persistence. Noel (1976) pointed out that the first six months is a critical period during which the intervention of counseling can play a decisive role. Kamens (1972) found that Stanford University students who used academic counseling support services persisted better than those who did not use them.

Several studies addressed the effects of special counseling services on persistence. Schotzinger, Buchanan and Fahrenback (1976) reported that a special counseling program increased persistence for that group. Grites (1979) summarized several other studies where counseling services were found to improve retention.

The many studies of community college counseling services on persistence have yielded fairly consistent findings that effective counseling reduces the dropout rate (O'Brian, 1967; Davis, 1970; MacMillan and Kester, 1973; Miami Dade, 1973; and Tucker, 1973). MacMillan and Kester (1973) in the NORCAL study, provided special counseling services to high risk students and found significant improvement in student persistence. In every situation they found that counseling support programs were highly related to persistence.

Employment and Financial Aid Opportunities

Astin (1975) reported that part time employment correlates positively with persistence especially when (1) the job is under 25 horus per week, (2) on campus, (3) the student starts work as a freshman and (4) the student receives minor grant/loan support. Additionally, students whose off campus work was closely related to career goals were more likely to drop out.

Scholarships and grants increase persistence slightly according to Blanchfield (1971). Nelson (1966) found that percentages of students awarded scholarships are positively related to persistence. However, some studies found no evidence that financial aid influences persistence (Fields and LeMay 1973; Selby, 1973).

Campus Size

Kamen's (1971) study suggested that large institutions have greater impact on occupational commitments than do smaller institutions and have lower dropout rates for males and more able students. Nelson (1966) found that small colleges had better retention rates than large schools, because of the personal attention and quality of experience provided. Feldman and Newcomb (1969) and Panos and Astin (1968) concluded from their studies that large, spread out campuses have poorer retention. Cope (1972) ssuggested that students from small high schools persist at small colleges and students from large high schools at large colleges.

Grading

Thayer (1971) implied that minimizing low grades and maximizing high grades can improve retention. The study showed, though, that retention rates did not increase significantly during the sixties even though grade inflation on many campuses was severe.

Full and Part Time Enrollment

In a sample of more than 34,000 students from 32 community colleges in California, Knoell (1976) discovered that full time freshmen and transfer students were more persistent than part-time students. A Florida study conducted at Santa Fe Community College (Central Florida Community College Consortium, 1973) indicated that more part-time than full time students withdraw. Such findings could result from the fact that full time students have more time to devote to their studies.

## Student Environment Interaction

The college environment has been studied in great detail (Astin, 1972, 1975; Chickering, 1966; Kamens, 1971; Landrith, 1971; Pervin, 1967). A synthesis of their research indicated that each college had a climate of its own and that this climate attracted a particular type of student. The type of institution selected by a student was a significant factor in determining college graduation, as was socioeconomic and intelligence level. Apparently colleges did not always meet the interpersonal needs of students. At least students felt their interpersonal needs were not as important on the college campus as were the academic requirements of the institution. When the college characteristics met the students' needs, the probability of graduation increased.

Miser (1971) in his study of first year college students and their perceptions of the college environment, found that those whose perception was substantially different from the realities of the environment earned lower grades than those who had more accurate perceptions. According to Landrith (1971) at least half of the students entering two year colleges withdrew prior to completing their studies. The key to the problem was related to the faculty of the specific institution. When the faculty failed to understand the needs of the students, dissonance between students and the institution increased.

A major synthesis of person-environment interaction studies was prepared by Feldman and Newcomb (1969). They concluded that congruence between the needs, interests, and abilities of the student and the demands, rewards and constraints of the institution explain retention.

## Summary of Related Research

The research reported in this chapter can be summarized as follows:

1. The need for support service programs for handicapped students has been well documented (AHSSPPE, 1980; Whitten, 1977; Sprandel and Schmidt, 1980; Kolstoe, 1978).
2. Practitioners responsible for providing supportive services to handicapped students are in agreement regarding models for program delivery. The components recognized as necessary include academic and career counseling, vocational planning, accessible facilities, adapted educational materials, accessible housing, transportation assistance, aides and/or attendants, and equipment loan and/or repair (Byron and Becker, 1980; Reid, 1979; McElroy, 1979; Harkins, 1978; Bevilacqua and Osterlink, 1979).
3. Many professionals have researched the topic of student characteristics as related to persistence. Personality characteristics (Bucklin and Bucklin, 1970); goals (Spady, 1970); intellectual ability (Turner, 1970); high school grades (Astin, 1972); attitudes (Trent and Medsker, 1968) and aspirations (Astin, 1975) were found to effect the persistence of students. It appears that these characteristics are similar for students enrolled at community college as well as four year institutions (Lenning, Beal and Sauer, 1980).
4. Numerous studies related to institutional characteristics and student persistence have been conducted. The quality and quantity of faculty student interaction, (Spady, 1971; Tinto, 1975; Pascarella and Terenzini, 1979, 1980; Noel, 1976; Schulman, 1976; Grites, 1978)

the effects of extracurricular activities, (Pantages and Creedon, 1978; Everett, 1979), the influence of counseling centers (Noel, 1976; Kamens, 1972; Schotzinger, Buchanan and Fahrenback, 1976; O'Brian, 1967; Davis, 1970; MacMillan and Kester, 1973), in some instances employment and financial aid opportunities (Astin, 1975; Blanchfield, 1971; Nelson, 1966) were found to relate positively to student persistence and in other studies were inconclusive (Fields and LeMay, 1973; Selby, 1973). Campus size was found to be significant in terms of student persistence and satisfaction (Kamens, 1971; Astin, 1968; Cope, 1972) as was grading as a retention factor (Thayer, 1971). Finally, student enrollment patterns were found to relate to persistence, when students enrolled full time there were fewer withdrawals (Knoell, 1976; Central Florida Community College Consortium, 1973).

5. Student satisfaction with the environment is related to persistence (Starr, Betz and Menne, 1972) when congruence is considered (Feldmen and Newcomb, 1969) and institutions can reduce unnecessary attrition if consideration is given to students' perceptions and satisfaction with the campus environment (Danuser, 1978). Satisfaction has a positive effect of students' performance, personalities and attitudes towards school (Beelick, 1973).

# CHAPTER III

# RESEARCH METHODOLOGY

The purpose of this chapter is to describe the population, procedures and instrumentation adapted for use in this study. The research design and methods of data analysis are included.

## Population

The population included in this study consisted of handicapped students enrolled during the winter semester, 1982 at three public comprehensive community colleges located in Missouri. The three institutions have been providing support services for handicapped students since the fall semester, 1979. The three community colleges were referred to as Institution 1, located in a rural area; Institution 2, located in a suburban area and Institution 3, located in an urban area.

Eighty-three students participated in the study. The students were self identified and qualified for the specialized support services through the assistance of the Vocational Resource Educator. They were labelled according to identified handicapping condition which included visually impaired, hearing impaired, learning disabled, orthopedically handicapped and other health impaired, a composite category. The population included students who had been enrolled for one, two, three, four and four plus semesters, respectively. Figure 2 depicts students' handicapping conditions and enrollment at Institution 1, Institution 2 and Institution 3.

| HANDICAPPING CONDITION | INSTITUTION 1 | INSTITUTION 2 | INSTITUTION 3 | TOTAL |
|---|---|---|---|---|
| Other Health Impaired | 11 | 1 | 2 | 14 |
| Orthopedically Imapired | 7 | 7 | 8 | 22 |
| Learning Disabled | 1 | 0 | 10 | 11 |
| Hearing Impaired | 2 | 0 | 28 | 30 |
| Visually Impaired | 0 | 2 | 4 | 6 |
| Total | 21 | 10 | 52 | 83 |

Figure 2: Handicapping conditions and enrollment at institution 1, institution 2 and institution 3.

## Collection of Data

### Advisory Committee

An Advisory Committee was convened during the initial phase of the study for the purpose of determining appropriate techniques for the collection of data. The Advisory Committee consisted of nine individuals, three faculty/staff from the University of Missouri-Columbia, two members having had a great deal of experience with handicapped populations. The remaining members consisted of Vocational Resource Educators from the participating institutions and their immediate administrators. The Vocational Resource Educators interacted daily with the students and were thus able to realistically comment on difficulties and solutions involved in the data collection. A listing of the members of the Advisory Committee is included in Appendix A.

### Procedure

A package containing a letter of explanation and a coooperation/participation response sheet was mailed to each of the individuals identified in the population. The letter described the study and requested students' participation in completing a survey instrument. Each package contained a self-addressed, stamped envelope enabling students to indicate their willingness to cooperate/participate in the study (Appendix B). The letter indicated the specific location and time at which the survey would be administered. Students not responding were telephoned. In the case of hearing impaired students, personal handwritten notes were mailed.

## Special Arrangements

Special services and arrangements were made available at the testing site. Large print and brailled versions of the instrument as well as readers were available for visually impaired and learning disabled students. Interpreters assisted those hearing impaired students who experienced difficulty with some of the vocabulary and terminology. Notetakers were provided for students whose motoric disability prevented a written response to the instrument. Additionally, cassette recorders were available for individuals whose preferred response was verbal rather than written.

## Instrumentation

The instrument used, the Environmental Satisfaction Instrument (ESI) was adapted from a Report of the National Center for Higher Education Management Systems at Western Interstate Commission for Higher Education (Bower and Meyers, 1976; Danuser, 1978). The instrument had been field tested at Arapahoe Community College in Littleton, Colorado in 1975. Personal communication with the Director of Student Affairs, Leabeth Barnard, revealed the appropriateness of the instrument for community college populations (Barnard, 1982). The instrument was further revised to meet the needs of the research on handicapped students at Institution 1, Institution 2, and Institution 3. The Advisory Committee incorporated the original instrument with content relative to the specialized services provided to handicapped students at each college. A copy of the instrumentation is included in Appendix C.

## Methods of Data Analysis

According to Ferguson (1966) a population is defined as an aggregate of objects, persons or events, the variables used as the basis for classification or measurement being specified. In this study the population consisted of the total handicapped student body enrolled at three community colleges in Missouri. Consequently, the parameters were known values which eliminated the need for inferential statistics.

Two techniques were used to analyze the data, the Pearson product moment correlation coefficient and the chi square test of independence. The Pearson correlation coefficient is a parametric technique using continuous data. The Pearson product moment correlation was used to test the relationships suggested in research questions 1, 2, 4, 5, 6, and 8. The relationships were correlated using the Pearson correlation component of the Statistical Package fot the Social Sciences (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975).

The chi square tests of independence were calculated using the crosstabs component of the Statistical Package for the Social Sciences (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975).

Research Question 1:

Students' length of stay, i.e., semesters enrolled, were correlated with each of the twenty-seven items included in the Environmental Satisfaction Instrument. Each of the twenty-seven items, measuring perceived satisfaction with the environment, were tested using the

Pearson product moment correlation analysis. Significant correlations were reported when $P < .10$.

Research Question 2:

Student achievement as measured by GPA, was correlated with each of the twenty-seven items included in the Environmental Satisfaction Instrument. Each of the twenty-seven items, measuring perceived satisfaction with the environment, were tested using the Pearson product moment correlation analysis. Significant correlations were reported when $P < .10$.

Research Question 3:

Students' self identified handicapping conditions were correlated with each of the twenty-seven items included in the Environmental Satisfaction Instrument. Each of the twenty-seven items, measuring perceived satisfaction with the environment, were tested using the chi square test of independence and lambda as a measure of association. Significant correlations were reported when $P < .10$.

Research Question 4:

Students' usage of VRE services were measured through an additional component to the Environmental Satisfaction Instrument. Students' usage of VRE services, per institution, were correlated with item 27 of the ESI which measured satisfaction with school in general and tested using the Pearson product moment correlation analysis. Significant correlations were reported when $P < .10$.

Research Question 5:

Students' length of stay, i.e., semesters enrolled, were correlated with their perceived satisfaction with VRE services, per institution, using the Pearson product moment correlation analysis. Significant correlations were reported when $P < .10$.

Research Question 6:

Student achievement, as measured by GPA, was correlated with their perceived satisfaction with VRE services, per institution, using the Pearson product moment correlation analysis. Significant correlations were reported when $P < .10$.

Research Question 7:

Students' self identified handicapping conditions were correlated with their perceived satisfaction with VRE services, per institution, using the chi square test of independence and lambda as a measure of association. Significant correlations were reported when $P < .05$.

Research Question 8:

Students' usage of VRE services were correlated with their perceived satisfaction with VRE services per institution, using the Pearson product moment correlation analysis. Significant correlations were reported when $P < .10$.

# CHAPTER IV

## RESULTS OF THE STUDY

The purpose of this chapter is to report the results of the survey of handicapped students' satisfaction with their environment, supportive services and usage of those supportive services. The results are presented according to the eight research questions.

Question 1: Is there a relationship between handicapped students' length of stay at specified community colleges in Missouri and their perceived satisfaction with selected factors in the campus environment?

Handicapped students' lengths of stay, i.e., number of semesters enrolled, were correlated with each of the twenty-seven items on the Environmental Satisfaction Instrument. The three institutions were treated as a total group using the Pearson product moment correlation analysis.

The results of the correlation analysis indicated low positive relationships between students' length of stay and their perceived satisfaction with six selected aspects of the campus environment. It appeared that as students' lengths of stay increased they had greater satisfaction with (1) the course content in their respective programs, (2) the teaching in their programs; (3) the relevance of their program to their chosen careers; (4) the scheduling of classes; (5) school in general and (6) social opportunities. Table 2 depicts the relationship

Table 2: Relationship Between LOS and GPA and Satisfaction with Selected Factors in the Campus Environment

| | Content in Program | Teaching in Program | Relevance of Program | Academic/Career Advising | Amount Contact/Teachers | Quality Contact/Teachers | Teacher Attitudes | Campus Friendliness | Staff Attitudes | Intellectual Stimulation | Quality of Students | Library Services | Cultural Opportunities | Recreational Facilities | Extracurricular | Social Opportunities | Scheduling | Grading | Rules and Regulations | Pre-enrollment Information | Financial Aid | Off Campus Employment | On Campus Employment | Location | Cost | Class Size | School in General |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Length of Stay** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R = | .196** | .190** | .282*** | .119 | .135 | .146 | .054 | .102 | -.085 | .114 | -.002 | .030 | -.058 | -.015 | .108 | .173* | .225** | .080 | .005 | .107 | .145 | -.115 | -.094 | -.027 | .047 | .122 | .217** |
| $R^2$ = | .038 | .036 | .079 | .014 | .018 | .021 | .003 | .010 | .007 | .013 | .000 | .000 | .003 | .000 | .011 | .030 | .050 | .006 | .000 | .011 | .021 | .013 | .009 | .000 | .002 | .014 | .047 |
| Sig = | .040 | .044 | .006 | .149 | .113 | .103 | .311 | .178 | .227 | .157 | .491 | .399 | .326 | .451 | .185 | .069 | .023 | .236 | .486 | .175 | .123 | .232 | .262 | .406 | .338 | .141 | .026 |
| N = | 80 | 81 | 76 | 78 | 81 | 76 | 82 | 83 | 79 | 79 | 80 | 73 | 67 | 64 | 70 | 74 | 78 | 82 | 78 | 78 | 65 | 42 | 47 | 78 | 79 | 79 | 80 |
| **Grade Point Average** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R = | .007 | .116 | .050 | .121 | .081 | -.041 | -.075 | .181** | .015 | .027 | -.069 | -.075 | -.185* | -.007 | .166* | .069 | -.142 | .061 | .048 | .037 | .081 | -.181 | -.236* | .037 | -.068 | -.132 | .076 |
| $R^2$ = | .000 | .013 | .002 | .014 | .006 | .001 | .005 | .033 | .000 | .000 | .004 | .005 | .034 | .004 | .027 | .004 | .020 | .003 | .002 | .001 | .006 | .032 | .056 | .001 | .004 | .017 | .005 |
| Sig = | .473 | .149 | .331 | .143 | .234 | .360 | .248 | .050 | .446 | .405 | .271 | .264 | .066 | .297 | .084 | .277 | .106 | .290 | .336 | .373 | .259 | .125 | .054 | .371 | .273 | .121 | .248 |
| N = | 80 | 81 | 76 | 78 | 81 | 76 | 82 | 83 | 79 | 79 | 80 | 73 | 67 | 64 | 70 | 74 | 78 | 82 | 78 | 78 | 65 | 42 | 47 | 78 | 79 | 79 | 80 |

*p<.10
**p<.05
***p<.01

between length of stay and satisfaction with selected factors in the campus environment.

Course content in program. A positive correlation, R=.19 was found between length of stay and course content in program. This was significant at the .05 level.

Teaching in the program. A positive correlation, R=.19 was found between length of stay and teaching in program. This was significant at the .05 level.

Relevance of program to career. A positive correlation, R=.28 was found between length of stay and relevance of program to career. This was significant at the .01 level.

Social opportunities. A positive correlation, R=.17 was found between length of stay and social opportunities. This was significant at the .10 level.

Scheduling of classes. A positive correlation, R=.22 was found between length of stay and the scheduling of classes. This was significant at the .05 level.

School in general. A positive correlation, R=.21 was found between length of stay and school in general. This was significant at the .05 level.

Question 2: Is there a relationship between handicapped students' achievement, as measured by GPA, and their perceived satisfaction with selected factors in the campus environment?

Handicapped students' indicators of achievement, as measured by GPA, were correlated with each of the twenty-seven items on the Environ-

mental Satisfaction Instrument. The three institutions were treated as a group, using the Pearson product moment correlation analysis.

The results of the correlation analysis indicated both positive and negative relationships between students' achievement, as measured by GPA, and their perceived satisfaction with four selected aspects of the campus environments. There was a low, positive relationship between GPA and students' perceived satisfaction with campus friendliness. A low, positive relationship was found between GPA and students' perceived satisfaction with extracurricular activities. It appeared, then, that as students' GPA's increased they became more satisfied with (1) the friendliness of the campus and (2) extracurricular activities.

Low and moderate negative relationships, respectively, were found between GPA and students' perceived satisfaction with cultural opportunities and on campus employment. This suggested that as students' GPA's increased they became less satisfied with campus cultural opportunities and on campus employment opportunities. Table 2 depicts the relationship between GPA and satisfaction with selected factors in the campus environment.

Campus friendliness. A positive correlation, R=.18 was found between GPA and campus friendliness. This was significant at the .05 level.

Cultural opportunities. A negative correlation, R=-.18 was found between GPA and cultural opportunities. This was significant at the .10 level.

Extracurricular opportunities. A positive correlation, R=.16 was found between GPA and extracurricular opportunities. This was significant the .10 level.

On campus employment. A negative correlation, R=-.23 was found between GPA and on campus employment. This was significant at the .10 level.

Question 3: Is there a relationship between students' identified handicapping conditions and their perceived satisfaction with selected factors in the campus environment?

Students' self identified handicapping conditions were tested with each of the twenty-seven items on the Environmental Satisfaction Instrument. The three institutions were treated as a total group using the chi square test of independence and lambda as a measure of association.

The results of the analysis indicated no significant relationships between students' identified handicapping condition and their perceived satisfaction with selected factors in the campus environment.

Question 4: Is there a relationship between handicapped students' usage of VRE support services and their perceived satisfaction in the campus environment in general?

An additional component to the Environmental Satisfaction Instrument was designed for each specific community college in order to measure VRE services provided per institution. These services, per institution, were correlated using the Pearson product moment correlation analysis. Table 3 depicts the relationship between usage of VRE support services and satisfaction in general.

Table 3: Relationship Between Usage of VRE Support Services and Satisfaction with the Campus Environment in General

| | Learning Center | Instructional Modules | Career Awareness | Job Placement | Vocational Counseling | Tutors | Vocational Evaluation Center | Access | SDL | Vocational Counseling | Equipment Modification | Instructional Modification | Notetakers | Tutors | Test Arrangement | Personal Assistance | Communications I | Communications II | Career Exploration |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **School in General** | | | | | | | | | | | | | | | | | | | |
| R = | -.122 | -.464 * | .0 | -.544 | .290 | -.103 | .535 * | .355 | .108 | .554 * | .214 | .775 ** | .333 | .685 * | .869 *** | .303 | .527 *** | .595 *** | .294 * |
| $R^2$ = | .017 | .215 | .0 | .296 | .053 | .010 | .287 | .126 | .011 | .307 | .045 | .600 | .111 | .470 | .756 | .092 | .277 | .355 | .086 |
| Sig = | .311 | .055 | .50 | .103 | .171 | .403 | .055 | .156 | .408 | .098 | .322 | .011 | .333 | .066 | .005 | .254 | .010 | .012 | .086 |
| N = | 16 | 13 | 6 | 7 | 19 | 8 | 10 | 10 | 7 | 7 | 7 | 8 | 4 | 6 | 7 | 7 | 19 | 14 | 23 |

*P < .10
**P < .05
***P < .01

| Job Placement | Vocational Counseling | NSO | Equipment Modification | Instructional Modification | Interpreters | Notetakers | Readers | Tutors | Writers |
|---|---|---|---|---|---|---|---|---|---|
| .512 *** | .399 ** | .662 *** | .399 ** | .508 ** | .526 *** | .555 *** | .626 *** | .610 *** | .731 *** |
| .262 | .159 | .438 | .159 | .258 | .277 | .308 | .392 | .372 | .534 |
| .010 | .011 | .0004 | .040 | .011 | .0009 | .0002 | .002 | .0001 | .0002 |
| 20 | 32 | 22 | 20 | 20 | 32 | 35 | 19 | 30 | 18 |

## Institution 1

The results of the correlation analysis indicated (1) a moderate positive relationship between students' usage of vocational education services and their perceived satisfaction with the school in general and (2) a moderate negative relationship between the students' usage of instructional modules and their perceived satisfaction with school in general. It appeared that as students' usage of vocational evaluation services increased, they enjoyed greater satisfaction with school in general, and as their usage of instructional modules increased they were less satisfied with school in general.

Instructional modules. A negative correlation, R=-.46 was found between usage of instructional modules and satisfaction with school in general. This was significant at the .10 level.

Vocational evaluation center. A positive correlation, R=.53 was found between usage of the vocational evaluation center and satisfaction with school in general. This was significant at the .10 level.

## Institution 2

The results of the correlation analysis indicated high positive relationships between the usage of four services provided by the Vocational Resource Education and students' perceived satisfaction with school in general. It appeared that as students increased their usage of (1) test arrangement services; (2) instructional modification services; (3) vocational counseling services and (4) tutoring services they enjoyed greater satisfaction with school in general.

Vocational counseling services. A positive correlation, R=.55 was found between usage of vocational counseling services and satisfaction with school in general. This was significant at the .10 level.

Instructional modification services. A positive correlation, R=.77 was found between usage of instructional modification services and satisfaction with school in general. This was significant at the .05 level.

Tutorial services. A positive correlation, R=.68 was found between usage of tutoring services and satisfaction with school in general. This was significant at the .10 level.

Test arrangement services. A positive correlation, R=.86 was found between usage of test arrangement services and satisfaction with school in general. This was significant at the .01 level.

## Institution 3

The results of the correlation analysis indicated positive relationships between students' usage of all 13 VRE services and their perceived satisfaction with school in general. A high positive relationship existed between students' usage of writers and their perceived satisfaction with school in general. Moderate positive relationships were found between students' usage of the following 9 VRE services and their perceived satisfaction with school in general. The services included usage of Communications I; Communications II, job placement; New Student Orientation; interpreters; notetakers; readers; tutors; and instructional modification. Low positive correlations were found between (1) students' usage of vocational counseling and their perceived

satisfaction with school in general and (2) students' usage of equipment modification services and their perceived satisfaction with school in general and (3) students' usage of career exploration and their perceived satisfaction with school in general. It appeared that as students increased their usage of the nine indicated VRE services they were correspondingly more satisfied with school in general.

Communications I. A positive correlation, R=.52 was found between usage of Communications I and satisfaction with school in general. This was significant at the .01 level.

Communications II. A positive correlation, R=.59 was found between usage of Communications II and satisfaction with school in general. This was significant at the .01 level.

Career exploration. A positive correlation, R=.29 was found between use of career exploration services and satisfaction with school in general. This was significant at the .10 level.

Job placement. A positive correlation, R=.51 was found between usage of job placement services and satisfaction with school in general. This was significant at the .01 level.

Vocational counseling. A positive correlation, R=.39 was found between vocational counseling services and satisfaction with school in general. This was significant at the .05 level.

New student orientation. A positive correlation, R=.66 was found between usage of New Student Orientation and satisfaction with school in general. This was significant at the .01 level.

Equipment modification. A positive correlation, R=.39 was found between usage of equipment modification and satisfaction with school in general. This was significant at the .05 level.

Instructional modification. A positive correlation, R=.50 was found between usage of instructional modification and satisfaction with school in general. This was significant at the .05 level.

Interpreters. A positive correlation, R=.52 was found between the use of interpreters and satisfaction with school in general. This was significant at the .01 level.

Notetakers. A positive correlation, R=.55 was found between the use of notetakers and satisfaction with school in general. This was significant at the .01 level.

Readers. A positive correlation, R=.62 was found between the use of readers and satisfaction with school in general. This was significant at the .01 level.

Tutors. A positive correlation, R=.61 was found between the use of tutors and satisfaction with school in general. This was significant at the .01 level.

Writers. A positive correlation, R=.73 was found between the use of writers and satisfaction with school in general. This was significant at the .01 level.

Question 5: Is there a relationship between handicapped students' length of stay at specified community colleges in Missouri and their perceived satisfaction with VRE support services?

Handicapped students' lengths of stay, i.e., semesters enrolled, were correlated with the additional components to the Environmental Satisfaction Instrument using the Pearson product moment correlation analysis. The components measured satisfaction with VRE support services per institution. Table 4 depicts the relationships between length of stay and satisfaction with VRE support services.

Table 4: Relationship Between Length of Stay and Grade Point Average and Satisfaction with VRE Support Services

| | Learning Center | Instructional Modules | Career Awareness | Job Placement | Vocational Counseling | Tutors | Vocational Evaluation Center | Access | SDL | Vocational Counseling | Equipment Modification | Instructional Modification | Notetakers | Tutors | Test Arrangement | Personal Assistance | Communications I | Communications II | Career Exploration | Job Placement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Length of Stay | | | | | | | | | | | | | | | | | | | | |
| R = | -.260 | -.090 | -.577 | -.333 | .174 | -.422 | -.486 | .159 | .408 | -.086 | .547** | .254 | · | -.130 | .285 | 0.0 | -.057 | -.032 | .300* | -.014 |
| $R^2$ = | .067 | .008 | .333 | .111 | .030 | .178 | .237 | .025 | .166 | .007 | .418 | .064 | · | .017 | .081 | 0.0 | .00 | .001 | .090 | .000 |
| Sig = | .174 | .379 | .211 | .333 | .238 | .239 | .110 | .330 | .247 | .419 | .058 | .254 | · | .389 | .246 | .50 | .407 | .464 | .099 | .476 |
| N = | 15 | 14 | 4 | 4 | 19 | 5 | 8 | 10 | 5 | 8 | 7 | 9 | 4 | 7 | 8 | 8 | 19 | 10 | 20 | 18 |
| Grade Point Average | | | | | | | | | | | | | | | | | | | | |
| R = | -.379* | .259 | .167 | -.406** | .645 | .245 | -.225 | -.757* | .258 | -.026 | .247 | -.195 | -.195 | .090 | -.530* | -.112 | .356* | .261 | .326* | .433** |
| $R^2$ = | .011 | .143 | .067 | .028 | .165 | .416 | .050 | .050 | .574 | .066 | .000 | .061 | .038 | .008 | .281 | .012 | .127 | .068 | .106 | .187 |
| Sig = | .353 | .090 | .370 | .416 | .041 | .119 | .278 | .265 | .068 | .268 | .477 | .260 | .402 | .423 | .087 | .395 | .066 | .232 | .080 | .036 |
| N = | 15 | 14 | 4 | 4 | 19 | 5 | 8 | 10 | 5 | 8 | 7 | 9 | 4 | 7 | 8 | 8 | 19 | 10 | 20 | 18 |

*P < .10
**P < .05
***P < .01

·coefficient not computed

## Institution 1

No significant correlations were found between students' length of stay and satisfaction with VRE support services at Institution 1.

## Institution 2

At Institution 2 the results of the correlation analysis indicated a moderate positive relationship between length of stay and equipment modification services. As length of stay increased, students appeared more satisfied with equipment modification services.

Equipment modification. A positive correlation, R=.54 was found between length of stay and satisfaction with equipment modification services. This was significant at the .05 level.

## Institution 3

At Institution 3 the results of the correlation analysis indicated moderate positive relationships between length of stay and seven services provided by the Vocational Resource Educator. These included career exploration services, vocational counseling services, New Student Orientation, notetaker services, reader services, tutor services and writer services. It appeared that as students' lengths of stay increased, they were more satisfied with seven services provided by the VRE.

Career exploration. A positive correlation, R=.30 was found between length of stay and satisfaction with career exploration services. This was significant at the .10 level.

Vocational counseling. A positive correlation, R=.38 was found between length of stay and satisfaction with vocational counseling services. This was significant at the .05 level.

New Student Orientation. A positive correlation, R=.42 was found between length of stay and satisfaction with New Student Orientation. This was significant at the .05 level.

Notetakers. A positive correlation, R=.36 was found between length of stay and satisfaction with notetakers. This was significant at the .05 level.

Readers. A positive correlation, R=.49 was found between length of stay and satisfaction with readers. This was significant at the .05 level.

Tutors. A positive correlation, R=.24 was found between length of stay and satisfaction with tutors. This was significant at the .10 level.

Writers. A positive correlation, R=.42 was found between length of stay and satisfaction with writers. This was significant at the .10 level.

Question 6: Is there a relationship between handicapped students' achievement as measured by GPA, and their perceived satisfaction with VRE support services?

Handicapped students' indicators of achievement, as measured by GPA, were correlated with the additional components to the Environmental Satisfaction Instrument using the Pearson product moment correlation. The components measured satisfaction with VRE support services, per institution. Table 4 depicts the relationships between GPA and satisfaction with VRE support services.

## Institution 1

At Institution 1 the results of the correlation analysis indicated moderate negative relationships between GPA and satisfaction with vocational counseling services and GPA and satisfaction with instructional modules. It appeared that as students' GPA's increased they were less satisfied with the vocational counseling and instructional module services.

Instructional modules. A negative correlation, R=-.37 was found between GPA and satisfaction with instructional modules. This was significant at the .10 level.

Vocational counseling. A negative correlation, R=-.40 was found between GPA and satisfaction with vocational counseling services. This was significant at the .05 level.

## Institution 2

At Institution 2 the results of the correlation analysis indicated a high negative relationship between GPA and satisfaction with the Self Directed Learning Program, and a moderate negative relationship between GPA and satisfaction with test arrangement services. It appeared that as students' GPA's increased they were less satisfied with the Self Directed Learning Program and test arrangement services.

Self directed learning program. A negative correlation, R=-.75 was found between GPA and satisfaction with the Self Directed Learning Program. This was significant at the .10 level.

Test arrangement. A negative correlation, R=-.53 was found between GPA and satisfaction with test arrangement services. This was significant at the .10 level.

## Institution 3

At Institution 3 the results of the correlation analysis indicated low positive relationships between GPA and satisfaction with seven services provided by the Vocational Resource Educator. These included job placement services, vocational counseling services, Communications I, career exploration services, New Student Orientation, equipment modification services and instructional modification services. It appeared that as students' GPA's increased they were more satisfied with the above mentioned services. A low negative relationship was indicated between GPA and satisfaction with notetakers. It appeared that as students' GPA's increased they were less satisfied with notetaker services.

Communications I. A positive correlation, R=.35 was found between GPA and satisfaction with Communications I. This was significant at the .10 level.

Career exploration. A positive correlation, R=.32 was found between GPA and satisfaction with career exploration services. This was significant at the .10 level.

Job placement. A positive correlation, R=.43 was found between GPA and satisfaction with job placement services. This was significant at the .05 level.

Vocational counseling. A positive correlation, R=.35 was found between GPA and satisfaction with vocational counseling services. This was significant at the .05 level.

New student orientation. A positive correlation, R=.28 was found between GPA and satisfaction with New Student Orientation. This was significant at the .10 level.

Equipment modification. A positive correlation, R=.32 was found between GPA and satisfaction with equipment modification services. This was significant at the .10 level.

Instructional modification. A positive correlation, R=.30 was found between GPA and satisfaction with instructional modification services. This was significant at the .10 level.

Notetakers. A negative correlation, R=-.29 was found between GPA and satisfaction with notetakers. This was significant at the .05 level.

Question 7: Is there a relationship between students' identified handicapping conditions and their perceived satisfaction with VRE support services?

Students' self identified handicapping conditions were correlated with the additional components to the Environmental Satisfaction Instrument. These components measured satisfaction with VRE support services, per institutions using the chi square test of independence and lambda as a measure of association. The results of the analysis indicated no significant relationships between students' identified handicapping condition and their perceived satisfaction with support services provided by the Vocational Resource Educator.

Question 8: Is there a relationship between handicapped students' usage of VRE support services and their perceived satisfaction with those specialized services?

The additional components to the Environmental Satisfaction Instrument were used to measure students' usage of and perceived satisfaction with VRE support services. Usage and satisfaction were correlated item by item, per instituion using the Pearson product moment correlation.

## Institution 1

At Institution 1 the results of the correlation analysis indicated moderate, positive relationships between students' usage of and satisfaction with learning center services, vocational counseling services and tutor services. It appeared that as students increased their usage of these services they were correspondingly more satisfied. Table 5 depicts the relationships between usage of VRE support services and satisfaction with VRE support services.

Learning center. A positive correlation, R=.44 was found between usage of the learning center and satisfaction with the learning center. This was significant at the .05 level.

Vocational counseling. A positive correlation, R=.37 was found between usage of vocational counseling services and satisfactin with vocational counseling services. This was significant at the .10 level.

Tutors. A positive correlation, R=.75 was found between usage of tutors and satisfaction with tutors. This was significant at the .10 level.

## Institution 2

At Institution 2 the results of the correlation analysis indicated moderate and high positive relationships between students' usage of and satisfaction with vocational counseling services, instructional modification services, notetaker services and test arrangement services. It appeared that as students increased their usage of these services they were correspondingly more satisfied.

Table 5: Relationships Between Usage of VRE Support Services and Satisfaction with VRE Support Services

| | R | $R^2$ | Sig | N |
|---|---|---|---|---|
| Learning Center | .446** | .199 | .047 | 15 |
| Instructional Modules | .330 | .109 | .134 | 13 |
| Career Awareness | .866 | .750 | .166 | 3 |
| Job Placement | . | . | . | 3 |
| Vocational Counseling | .377* | .142 | .055 | 19 |
| Tutors | .750* | .562 | .072 | 5 |
| Vocational Evaluation Center | .240 | .058 | .282 | 8 |
| Access | .286 | .082 | .211 | 10 |
| SDL | .333 | .111 | .333 | 4 |
| Vocational Counseling | .834*** | .695 | .009 | 7 |
| Equipment Modification | -.451 | .204 | .54 | 7 |
| Instructional Modification | .538* | .289 | .084 | 8 |
| Notetakers | .870* | .757 | .064 | 4 |
| Tutors | .094 | .008 | .429 | 5 |
| Test Arrangement | .632* | .400 | .088 | 5 |
| Personal Assistance | .524 | .275 | .113 | 7 |
| Communications I | .551** | .304 | .010 | 17 |
| Communications II | .510* | .260 | .065 | 10 |
| Career Exploration | .738*** | .545 | .000 | 20 |
| Job Placement | .718*** | .515 | .000 | 17 |
| Vocational Counseling | .581*** | .338 | .000 | 31 |
| NSO | .647*** | .419 | .001 | 20 |
| Equipment Modification | .401* | .160 | .055 | 17 |

Table 5 (Contd.)

| | R | $R^2$ | Sig | N |
|---|---|---|---|---|
| Instructional Modification | .595*** | .354 | .005 | 17 |
| Interpreters | .035 | .001 | .425 | 30 |
| Notetakers | .372** | .138 | .015 | 34 |
| Readers | .885*** | .783 | .000 | 15 |
| Tutors | .608*** | .370 | .000 | 29 |
| Writers | .886*** | .786 | .000 | 15 |

*p<.10
**p<.05
***p<.01
· Coefficient not computed

Vocational counseling. A positive correlation R=.83 was found between usage of vocational counseling services and satisfaction with vocational counseling services. This was significant at the .01 level.

Instructional modification. A positive correlation, R=.53 was found between usage of instructional modification and satisfaction with instructional modification services. This was significant at the .10 level.

Notetakers. A positive correlation, R=.87 was found betwee usage of notetakers and satisfaction with notetakers. This was significant at the .10 level.

Test arrangement. A positive correlation, R=.63 was found between usage of test arrangement services and satisfaction with test arrangement services. This was significant at the .10 level.

## Institution 3

At Institution 3 the results of the correlation analysis indicated moderate and high positive relationships between usage of and satisfaction with Communications I, Communications II, career exploration services, job placement services, vocational counseling services, New Student Orientation, equipment modification services, instructional modification services, notetaker services, reader services, tutor services and writer services. It appeared that as students increased their usage of these services they were correspondingly more satisfied.

Communications I. A positive correlation, R=.55 was found between usage of Communications I and satisfaction with Communications I. This was significant at the .05 level.

Communications II. A positive correlation, R=.51 was found between usage of Communications II and satisfaction with Communications II. This was significant at the .10 level.

Career exploration. A positive correlation, R=.73 was found between usage of career exploration and satisfaction with career exploration services. This was significant at the .01 level.

Job placement. A positive correlation, R=.71 was found between usage of job placement services and satisfaction with job placement services. This was significant at the .01 level.

Vocational counseling. A positive correlation, R=.58 was found between usage of counseling services and satisfaction with counseling services. This was significant at the .01 level.

New student orientation. A positive correlation, R=.64 was found between usage of New Student Orientation and satisfaction with New Student Orientation. This was significant at the .01 level.

Equipment modification. A positive correlation, R=.40 was found between usage of equipment modification and satisfaction with equipment modification services. This was significant at the .10 level.

Instructional modification. A positive correlation, R=.59 was found between usage of instructional modification and satisfaction with instructional modification services. This was significant at the .01 level.

Notetakers. A positive correlation, R=.37 was found between usage of notetakers and satisfaction with notetakers. This was significant at the .05 level.

Readers. A positive correlation, R=.88 was found between usage of readers and satisfaction with readers. This was significant at the .01 level.

Tutors. A positive correlation, R=.60 was found between usage of tutors and satisfaction with tutors. This was significant at the .01 level.

Writers. A positive correlation, R=.88 was found between usage of writers and satisfaction with writers. This was significant at the .01 level.

# CHAPTER V

# SUMMARY, DISCUSSION AND RECOMMENDATIONS

## Summary

This study was undertaken to investigate the relationships between selected student characteristics and measures of perceived campus and support service satisfaction by postsecondary handicapped populations enrolled in three public community colleges in Missouri. Selected characteristics included students' (1) length of stay in school, i.e., number of semesters enrolled; (2) academic achievement measured through GPA; (3) self-identified handicapping condition and (4) usage of specialized support services provided by the Vocational Resource Educator. Measures of satisfaction included students' responses to (1) twenty-seven campus related factors identified through the Environmental Satisfaction Instrument adapted from Bower and Meyers (1976); (2) the factor of school in general from the ESI; and (3) the services provided by the Vocational Resource Educator. It was expected that specific information could be provided for decision making at participating institutions regarding the postsecondary handicapped student with special consideration to campus factors and support services.

The subjects of handicapped students' satisfaction, persistence and support program models were examined from several perspectives: handicapped students; special programming; student characteristics; institutional characteristics; and student environment interaction.

The population reported in this study consisted of handicapped students enrolled in three community colleges which have provided extensive support services since 1979. The Enrivonmental Satisfaction Instrument was adapted with assistance from an interinstitutional advisory committee. Administration dates were selected and students were notified by mail with (1) a letter describing the intent of the study and (2) a participation/cooperation release form with a self-addressed stamped envelope. Students were instructed to indicate their willingness to participate and returned the form in the envelope provided. Eighty-three of 130 students participated which indicated a response rate of 63%.

The data were analyzed using the Pearson product moment correlation analysis, for parametric data and Spearman's rho for non parametric data. The statistical analyses consisted of a large number of individual correlation computations. These correlations were used in lieu of other more complex analyses, due to the examination of a population and not a sample.

The large number of analyses (226), and a relatively small number of significant correlations (68) has made the interpretation somewhat difficult. The interpretations are included in this chapter in four major areas; general observations, satisfaction with campus environment, satisfaction with school in general and satisfaction with specialized support services.

## Discussion

### General Observations

Population. The numbers of handicapped students enrolled in community colleges in the state of Missouri is extremely low. In fact, of the 57,000 full and part-time students enrolled during the fall of 1981, (AACJC, 1982) only 130 or two tenths of one percent (.2%) of the self identified handicapped were receiving services through the Vocational Resource Educator model. Two tenths of one percent is well below the national figure of 2.6 reported by the President's Committee on Employment of the Handicapped (1978) and poorly representative of the expected prevalence rate of 8.1% offered by the Bureau of Education for the Handicapped (President's Committee on Employment of the Handicapped, 1977).

On an institutional level the data described similar representation. At Institution 1, handicapped students represented less than 2% of the student body; at Institution 2 less than .1% of the student body; and at Institution 3, less than .6% of the student body.

The percentages of male and female students were relatively equal. Female students comprised 51% of the population, males 49% of the 83 persisting students enrolled, 72% attended college on a full-time basis and 28% attended part time. Figure 3 depicts the sex and enrollment classifications. Knoell (1976) discovered that full-time students were more persistent than part-time students, a finding supported by a study at Santa Fe Community College in Florida (Central Florida Community College Consortium, 1972). In light of the large reported percentage of full time handicapped students (75%) in this study, it should be

| Institution | N | Full Time | % | Part Time | % | Male | % | Female | % |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 21 | 17 | 80 | 4 | 19 | 12 | 57 | 9 | 43 |
| 2 | 10 | 7 | 70 | 3 | 30 | 4 | 40 | 6 | 60 |
| 3 | 52 | 36 | 69 | 16 | 30 | 25 | 48 | 27 | 52 |
| Total | 83 | 60 | 72 | 23 | 28 | 41 | 49 | 42 | 51 |

Figure 3: Sex and enrollment classification

expected that the persistence of these students would be superior to campuses where the full time percentages were lower.

Satisfaction. The satisfaction with selected factors in the campus environment was evaluated in relationship to students' length of stay and achievement. These factors were all found to be significantly related to one or more factors of satisfaction. Figure 4 depicts the significant interrelationships for all factors related to length of stay and achievement. This finding indicated that length of stay and achievement were independent factors.

In evaluating the twenty-seven factors related to satisfaction, mean scores for all schools were computed and ranked. Figure 5 depicts the mean rank of all factors related to satisfaction for all institutions.

The Environmental Satisfaction Instrument has been structured into four areas in which factors have been identified; (a) program; (b) interaction with others; (c) cultural and social; and (d) general environment. An analysis of these four areas indicated that the subjects were more positive about factors related to interactions with others and the general environment than with the program or cultural and social opportunities. Four factors that are identified as interactions with others were ranked in the range of extremely satisfied (3.75 - 5.00) from a total of six factors. Four factors related to the general environment were ranked from 3.75 to 5.0 from the total of eleven factors. Only one factor in the program area and no factors in cultural/social opportunities were ranked above a mean score of 3.75.

| | | LOS | GPA |
|---|---|---|---|
| P1 | Course content in program | X | |
| P2 | Teaching in program | X | |
| P3 | Relevance to career | X | |
| P4 | Academic Career advisory | | |
| P5 | Contact with teacher | | |
| P6 | Quality of teacher contact | | |
| E7 | Teacher attitude toward student | | |
| E8 | Campus friendliness | | X |
| E9 | Staff attitude toward student | | |
| E10 | Intellectual stimulation | | |
| E11 | Quality of students | | |
| E12 | Library services | | |
| E13 | Cultural opportunities | | X |
| C14 | Recreational facilities | | |
| C15 | Extracurricular activities | | X |
| C16 | Social opportunities | X | |
| R17 | Schedule of classes | X | |
| R18 | Grading system | | |
| R19 | Rules and Regulations | | |
| R20 | Pre-enrollment information | | |
| $21 | Financial aide opportunities | | |
| R22 | Off-campus employment | | |
| R23 | On-campus employment | | X |
| R24 | Location | | |
| R25 | Cost | | |
| R26 | Enrollment Size | | |
| R27 | School in general | X | |

Figure 4: Significant relationships between LOS and GPA and factors related to satisfaction with the campus environment.

| | Variable | Description | Inst. 1 | N | Inst. 2 | N | Inst. 3 | N | Total | Total N | Total Missing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Program | P1 | Course content in program | 7 | 21 | 26 | 10 | 20 | 49 | 16 | 80 | 3 |
| | P2 | Teaching in program | 13.5 | 21 | 9 | 10 | 17 | 50 | 13 | 81 | 2 |
| | P3 | Relevance to career | 17 | 20 | 24 | 9 | 8 | 47 | 15 | 76 | 7 |
| | P4 | Academic career advising | 16 | 21 | 11 | 9 | 27 | 48 | 22 | 78 | 5 |
| | P5 | Contact with teacher | 4 | 21 | 13.5 | 10 | 26 | 50 | 17 | 81 | 2 |
| | P6 | Quality of teacher contact | 6 | 21 | 18.5 | 10 | 13 | 46 | 8.5 | 76 | 7 |
| Interaction with Others | E7 | Teacher attitude toward student | 8.5 | 21 | 13.5 | 10 | 15.5 | 51 | 11 | 82 | 1 |
| | **E8 | Campus friendliness | 1 | 21 | 6.5 | 10 | 3 | 52 | 2 | 83 | 0 |
| | **E9 | Staff attitude toward student | 2 | 21 | 4.5 | 9 | 4 | 49 | 3 | 79 | 4 |
| | E10 | Intellectual stimulation | 21.5 | 21 | 11 | 9 | 21 | 49 | 23 | 79 | 4 |
| | *E11 | Quality of students | 21.5 | 21 | 4.5 | 9 | 6 | 50 | 8.5 | 80 | 3 |
| | **E12 | Library services | 4 | 21 | 1 | 9 | 1 | 43 | 1 | 73 | 10 |
| Cultural and Social Opportunities | C13 | Cultural opportunities | 19 | 20 | 24 | 9 | 12 | 38 | 20 | 67 | 16 |
| | C14 | Recreational facilities | 25 | 18 | 24 | 9 | 11 | 37 | 24 | 64 | 19 |
| | C15 | Extracurricular activities | 24 | 19 | 15.5 | 9 | 23 | 42 | 25 | 70 | 3 |
| | C16 | Social opportunities | 20 | 19 | 22 | 10 | 15.5 | 45 | 19 | 74 | 9 |
| General Environment | R17 | Schedule of classes | 18 | 19 | 18.5 | 10 | 7 | 41 | 12 | 78 | 5 |
| | R18 | Grading system | 11 | 21 | 20.5 | 9 | 22 | 52 | 21 | 82 | 1 |
| | *R19 | Rules and regulations | 13.5 | 21 | 3 | 8 | 9 | 49 | 6.5 | 78 | 5 |
| | R20 | Pre-enrollment information | 15 | 21 | 20.5 | 9 | 10 | 48 | 14 | 78 | 5 |
| | R21 | Financial aide opportunities | 23 | 18 | 8 | 8 | 18 | 39 | 18 | 65 | 18 |
| | R22 | Off-campus employment | 27 | 12 | 27 | 5 | 25 | 25 | 27 | 42 | 41 |
| | R23 | On-campus employment | 26 | 14 | 17 | 7 | 24 | 26 | 26 | 47 | 36 |
| | *R24 | Location | 4 | 21 | 2 | 9 | 19 | 48 | 6.5 | 78 | 5 |
| | R25 | Cost | 11 | 21 | 11 | 9 | 14 | 49 | 10 | 79 | 4 |
| | *R26 | Enrollment size | 11 | 21 | 15.5 | 9 | 5 | 49 | 5 | 79 | 4 |
| | R27 | School in general | 8.5 | 21 | 6.5 | 10 | 2 | 49 | 4 | 80 | 3 |

**Students at all three schools extremely satisfied
*Students at 2 of 3 schools extremely satisfied

Figure 5: Mean rank of all factors related to satisfaction for all institutions.

| Vocational Counselling | NSD | Equipment Modification | Instructional Modification | Interpreters | Notetakers | Readers | Tutors | Writers |
|---|---|---|---|---|---|---|---|---|
| .383 | .429 | .256 | .285 | .159 | .360 | .490 | .244 | .420 |
| ** | ** | | | | ** | ** | * | * |
| .147 | .184 | .065 | .081 | .025 | .129 | .241 | .059 | .176 |
| .012 | .018 | .124 | .111 | .200 | .016 | .022 | .100 | .052 |
| 34 | 24 | 22 | 20 | 30 | 35 | 17 | 29 | 16 |
| .350 | .281 | .323 | .308 | -.197 | -.290 | .034 | -.168 | .150 |
| ** | * | * | * | | ** | | | |
| .122 | .079 | .104 | .094 | .039 | .084 | .001 | .028 | .022 |
| .021 | .091 | .070 | .093 | .147 | .044 | .447 | .191 | .289 |
| 34 | 24 | 22 | 20 | 30 | 35 | 17 | 29 | 16 |

It appeared that all students were satisfied with the library service, campus friendliness and staff attitudes. The rationale for extreme satisfaction with library services across campuses is not apparent from the data. It may be that these facilities are (a) accessible or (b) house some or all of the handicapped student services.

Students expressed low satisfaction with on campus employment opportunities. This is important because as Astin (1975) has suggested, part-time employment correlates positively with persistence especially when the job is (1) under 25 hours per week and (2) on campus.

In an analysis of each institution, some interesting observations were apparent.

## Institution 1

In addition to library services, campus friendliness and staff attitudes, subjects at this institution were extremely satisfied with the location of the facility. This institution is the only one of the three schools that is located away from the major population centers and is the newest of the three campuses. The students were least satisfied with opportunities for off-campus employment, on-campus employment and recreational facilities. A contradiction may lie in the fact that satisfaction with campus location is relatively high. This rural location may very well contribute to the relatively low satisfaction with employment and recreational opportunities.

## Institution 2

The students at this institution were extremely satisfied with all factors in the area of interaction with others. It appeared that

interactions were extremely satisfactory between students and staff. Additionally, students were satisfied with the location of the campus. The students were moderately satisfied with the location of the campus. The students were moderately satisfied with programmatic aspects of the teaching-learning environment, specifically the instructors in their programs, the amount of contact with instructors, and the attitudes of the instructors. This may become a concern to administrators if students become less satisfied with these programmatic aspects. Spady (1971), Tinto (1975) and Pascarella and Terenzini (1979, 1980) have suggested that positive and frequent student-faculty interaction affects retention and aids in creating a holding environment (Noel, 1976). Perhaps students' perceived satisfaction in this area should be monitored on a regular basis. Students were less satisfied with the large enrollment size of their classes.

Institution 3

The students enrolled at this institution were extremely satisfied with factors in the area of interaction with others. A specific goal of the VRE has been comprehensive and continuous inservice of staff in order to facilitate an understanding of the handicapped student which may have accounted for students' positive responses in this area. The importance of inservice training has been stressed by Walker (1980), Boukouvalas and Gay (1980) and Bevilacqua and Osterlink (1979).

The students were less satisfied in the area of program. As indicated in the discussion of Institution 2, this may be an area of concern if students continue to express moderate or little satisfaction.

Students did appear, however, satisfied with the relevance of their program to career, an extremely important consideration for students enrolled in technological or vocational programs (Pantages and Creedon, 1978). Students, additionally, were satisfied with school in general and with the enrollment size of classes. This was an interesting finding, considering the continually increasing enrollment at Institution 3 and the relatively large numbers of students enrolled in classes. However, handicapped students are encouraged to locate themselves within close proximity to the instructor which may have accounted for their high satisfaction with class size. Because of their close proximity to the instructor they may have benefitted from eye contact, non verbal and verbal attention directed from the instructors. Students were also satisfied with the scheduling of classes which appeared to be available at differential times and locations.

Length of stay. The data suggested that approximately 30% of the hearing impaired students persist longer than four semesters; 60% of the learning disabled students persist longer than four semesters; 24% of the orthopedically handicapped students persist longer than four semesters; 21% of the other health impaired students persist longer than four semesters and 18% of the visually impaired students persist longer than four semesters. Possibly the VRE services designed specifically for hearing impaired and learning disabled students have contributed to the persistence of these two groups. Figure 6 depicts students' handicapping conditions and lengths of stay at Institution 1, Institution 2 and Institution 3.

| HANDICAPPING CONDITION | LENGTH OF STAY | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1-2 | | | 3-4 | | | 4+ | | | TOTAL | | |
| | Institution | | | Institution | | | Institution | | | Institution | | |
| | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| HEARING IMPAIRED | 1 | - | 12 | - | - | 7 | 1 | - | 9 | 2 | 0 | 28 |
| LEARNING DISABLED | - | - | 4 | - | - | 1 | 1 | 1 | 5 | 1 | 0 | 10 |
| ORTHOPEDICALLY HANDICAPPED | 1 | 1 | 3 | 6 | 2 | 3 | - | 3 | 2 | 7 | 7 | 8 |
| OTHER HEALTH IMPAIRED | 3 | 1 | - | 6 | - | 1 | 2 | - | 1 | 11 | 1 | 2 |
| VISUALLY IMPAIRED | - | 1 | - | - | 1 | 1 | - | - | 3 | 0 | 2 | 4 |
| | | | | | | | | | | 21 | 10 | 52 |

Figure 6: Handicapping conditions and length of stay at Institution 1, Institution 2 and Institution 3

Grade Point Average. The mean grade point averages were calculated for students with each handicapping condition. With the exception of the learning disabled population, all mean scores ranged from 2.5 to 2.8. The mean score for the learning disabled students was 1.9. Table 6 indicates mean grade point averages for each handicapping condition.

Usage. Students self reported their usage of VRE services which differed among institutions. In an analysis of the data, each service was interpreted according to the number of users and the mean number of hours per week in which the service was used. Vocational counseling was utilized by significant numbers of students across all campuses. At Institution 1, 90% of the students utilized vocational counseling; 76% utilized the learning center; 62% utilized instructional modules and 48% utilized the vocational evaluation center. At Institution 2, 100% of the students utilized the Access Program; 80% utilized instructional modification and 70% of the students utilized the Self Directed Learning Program, vocational counseling, equipment modification, test arrangement and personal assistance through the nurse's office. At Institution 3, 69% of the students utilized notetaker services; 63% utilized interpreters; and 60% utilized tutors. Figure 7 reports the usage of VRE services for all institutions. A comprehensive package of support services were provided to the students, across institutions, with certain programs targeted to specific groups. An analysis of the services revealed four distinct groups as depicted in Figure 8. These groupings included:

1. instructional services
2. counseling and career exploration

Table 6: Mean Grade Point Average per Handicapping Condition

| Group | n | $\bar{x}$ |
|---|---|---|
| Other Health Impaired | 14 | 2.8 |
| Orthopedically Handicapped | 22 | 2.7 |
| Learning Disabled | 11 | 1.9 |
| Hearing Impaired | 30 | 2.5 |
| Visually Impaired | 6 | 2.6 |

| Institution/N | Activity | Number of Users | % | Mean Usage/Hours Per Week | |
|---|---|---|---|---|---|
| 1 N=21 | Learning Center | 13 | 76% | 3.813 | Moderate 3-4 |
| | Instructional Modules | 13 | 62% | 3.385 | Moderate 3-4 |
| | Career Awareness | 6 | 29% | 2.0 | Little 1-2 |
| | Job Placement | 7 | 33% | 1.429 | Little 1-2 |
| | Vocational Counseling | 19 | 90% | 2.421 | Little 1-2 |
| | Tutors | 8 | 38% | 2.250 | Little 1-2 |
| | Vocational Eval. Center | 10 | 48% | 3.0 | Moderate 3-4 |
| 2 N=10 | Access Program | 10 | 100% | 2.6 | Moderate 3-4 |
| | Self Directed Learning | 7 | 70% | 1.74 | Little 1-2 |
| | Vocational Counseling | 7 | 70% | 2.57 | Little 1-2 |
| | Equipment Modification | 7 | 70% | 3.71 | Moderate 3-4 |
| | Instructional Modification | 8 | 80% | 2.62 | Moderate 3-4 |
| | Notetakers | 4 | 40% | 2.0 | Little 1-2 |
| | Tutors | 6 | 60% | 1.66 | Little 1-2 |
| | Test Arrangement | 7 | 70% | 3.28 | Moderate 3-4 |
| | Personal Assistance | 7 | 70% | 2.14 | Little 1-2 |
| 3 N=52 | Communications I | 20 | 38% | 3.2 | Moderate 3-4 |
| | Communications II | 15 | 29% | 3.0 | Moderate 3-4 |
| | Career Exploration | 24 | 46% | 3.12 | Moderate 3-4 |
| | Job Placement | 21 | 40% | 2.81 | Moderate 3-4 |
| | Vocational Counseling | 34 | 65% | 3.20 | Moderate 3-4 |
| | New Student Orientation | 22 | 42% | 2.81 | Moderate 3-4 |
| | Equipment Modification | 20 | 38% | 3.3 | Moderate 3-4 |
| | Instructional Modification | 21 | 40% | 3.09 | Moderate 3-4 |
| | Interpreters | 33 | 63% | 3.78 | Moderate 3-4 |
| | Notetakers | 36 | 69% | 3.66 | Moderate 3-4 |
| | Readers | 20 | 38% | 3.15 | Moderate 3-4 |
| | Tutors | 31 | 60% | 3.41 | Moderate 3-4 |
| | Writers | 18 | 35% | 3.27 | Moderate 3-4 |

Figure 7: Reported usage of support services by institution.

| CATEGORY | INSTITUTION 1 | INSTITUTION 2 | INSTITUTION 3 |
|---|---|---|---|
| Instructional Services | Learning Center<br>Instructional Modules | Access Program<br>Self Directed Learning | Communications I<br>Communications II<br>New Student Orientation |
| Counseling/Exploration Services | Vocational Counseling<br>Career Awareness<br>Job Placement<br>Vocational Evaluation | Vocational Counseling | Vocational Counseling<br>Career Exploration<br>Job Placement |
| Modification Services | | Equipment Modification<br>Instructional Modification | Equipment Modification<br>Instructional Modification |
| Consumer Services | Tutors | Tutors<br>Notetakers<br>Test Arrangement<br>Personal Assistance | Tutors<br>Notetakers<br>Interpreters<br>Readers<br>Writers |

Figure 8: Services provided to students by institution

3. modification services
4. specific consumer services.

These are congruent with suggested programming indicated by Harkins (1978), Rawlings, Trybus and Biser (1978), Kolstoe (1978), Reid (1979), McElroy (1979), Byron and Becker (1980, and Kahn (1982).

Satisfaction with the Campus Environment

Three research questions addressed students' perceived satisfaction with their respective campus environments. The questions are provided and discussed within this section.

1. Is there a relationship between handicapped students' length of stay at specified community colleges in Missouri and their perceived satisfaction with selected factors in the campus environment?

Significant correlations were found between length of stay and programmatic factors; course content in program, teaching in program and relevance of program to career. Hoyt (1978) suggested two propositions that seem to be supported by the relationship between length of stay and satisfaction. He proposed that satisfaction arises from two sources: a sense of progress in reaching personal goals and a sense of comfort with the environment. The data generated through this investigation is congruent, also, with results obtained by Astin (1975). Astin (1975) suggested that satisfaction with academic activities, as well as other factors, is a determiner of student persistence. Clearly, then, as students persisted longer in the college environment, they were more satisfied with selected aspects related to their programs.

2. Is there a relationship between handicapped students' achievement, as measured by GPA, and their perceived satisfaction with selected factors in the campus environment?

Significant correlations were found between students' achievement, as measured by GPA, and their satisfaction with factors of campus friendliness, cultural opportunities and extra curricular activities. Student involvement in extracurricular activities has been found to relate positively to retention. Everett (1979) discovered that persisters participated in more extracurricular activities than did non persisters while Pantages and Creedon (1978) concluded that too little documentation exists to support the role of extracurricular activities in retention. This research has suggested that extra curricular and cultural activities are related to achievement of handicapped students.

3. Is there a relationship between students' identified handicapping conditions and their perceived satisfaction with selected factors in the campus environment?

In an analysis of the relationships, between handicapping conditions and perceived satisfaction, no significant differences were found at the .05 level or below. The use of the .05 level for this question appears to be appropriate for two reasons.

When using chi square with expected cell sizes less than five, the results may be distorted and inflated. The Yates corrections could be used to correct for this inflation but since all values were below the stated level of significance, a correction factor would be meaningless (Huck, Cormier and Bounds, 1974).

The implications of a homogeneous satisfaction level for individuals with a specific type of handicap, is a very serious and potentially

stereotyping observation. If any statements are to be suggested in this regard, it is extremely important that the finding of this statistical treatment be even less a function of error. While most other aspects of this study have opted for making a type II error, it appears to be crucial that any significance here be as error free as possible.

The results of this research question support the assumptions that handicapped individuals are an extremely heterogenous group and will not provide any composite unanimity because of, or related to a specific type of disability. It can be concluded that the satisfaction with campus and specific services must be continued to be evaluated individually, by the persons who receive additional support services because of the extreme level of disability, not because of some apparent homogeneous functioning.

## Satisfaction with the Campus Environment in General

One research question addressed the relationship between students' usage of support services and their satisfaction with their campus environments in general. The question is provided and discussed in this section.

4. Is there a relationship between handicapped students' usage of VRE support services and their perceived satisfaction with the campus environment in general?

Significant correlations were found between students' usage of specific services and their satisfaction with campus environments in general. The categorization of the support services according to a

| Category | Institution 1 | ± | Institution 2 | ± | Institution 3 | ± |
|---|---|---|---|---|---|---|
| Instructional Services | Instructional Modules | - | | | Communications I | + |
| | | | | | Communications II | + |
| | | | | | New Student Orientation | + |
| Counseling/ Exploration | Vocational Evaluation | + | Vocational Counseling | + | Vocational Counseling | + |
| | | | | | Job Placement | + |
| Modification Services | | | Instructional Modification | + | | |
| Consumer Services | | | Test Arrangement | + | Interpreters | + |
| | | | Tutors | + | Notetakers | + |
| | | | | | Readers | + |
| | | | | | Tutors | + |
| | | | | | Writers | + |

Figure 9: Relationship between students' usage of categorized VRE services and satisfaction with the campus environment in general.

(+ indicates positive relationship with satisfaction)
(- indicates negative relationship with satisfaction)

cluster matrix was introduced in the discussion of general observations: Satisfaction. The matrix is utilized here to provide a simplified method of discussing the support services and is depicted in Figure 9.

## Institution 1

An analysis of the relationship between students' usage of instructional modules (categorized as instructional service) and perceived satisfaction with the campus environment in general, indicated a negative correlation. The modules are designed to provide students with instruction of a remedial rather than developmental nature. Perhaps handicapped students participating in remedial studies are less satisfied with school as the data has indicated. This conflicts with the research of Beal and Noel (1980) who have suggested that academic support in the form of appropriate remediation increases satisfaction and consequently affects retention. It is possible that the modules implemented at Institution 1 should be re-examined for appropriateness, readability, relevance and design.

A positive correlation existed between usage of vocational evaluation and students' perceived satisfaction with the campus in general. Vocational evaluation was categorized as a counseling/exploration service. According to Brolin and Kokaska (1979) vocational evaluation can be described as a career exploration process designed to assess student abilities, strength and weakness in terms of work aptitudes and interests. Information is collected through a variety of tests, simulations and hands on activities. The results of this process are most often used in planning appropriate training intervention. Training

consequently, is related specifically to students' goals and interests resulting in a more meaningful and satisfying educational experience. This underlying assumption, that the purpose of vocational evaluation is diagnostic, may be used to explain the relationship between usage of evaluation and students' perceived satisfaction with school in general.

## Institution 2

An analysis of the relationship between service usage and perceived student satisfaction with school in general indicated four services represented by three categories. A positive correlation existed between usage of vocational counseling, a counseling/exploration service and students' perceived satisfaction with school in general, the relationship between counseling and satisfaction has been well documented in the professional literature (Noel, 1976); Kamens (1972); Schotzinger, Buchanan and Fahrenback (1976); MacMillan and Kester (1973) and Beal and Noel (1980). Counseling, because it emphasized the individual's relationship to life goals, abilities and interests, course and program requirements, time scheduling, course scheduling and the use of campus resources, appeared to affect students' perceived satisfaction. This counseling focus has been highly successful for handicapped students (Kolstoe, 1978; Harkins, 1978; McElroy, 1979; and Reid, 1979).

A positive correlation existed between usage of instructional modification and perceived student satisfaction with school in general. At Institution 2, instructional modification consisted of a process of adapting instruction for specific students' needs. Specific study skills, modified text assignments and alternative student response

procedures were modifications developed cooperatively by the Vocational Resource Educator, the students and instructors. The cooperative effort and interpersonal interaction may explain the relationship between instructional modification and student satisfaction (Reid, 1979).

Positive correlations were found between the consumer services of test arrangement and tutors with students' perceived satisfaction with the campus environment. Reid (1979) has suggested that these personal and necessary services affect the handicapped individual's sense of well being and comfort in the environment. This sense of comfort may explain the relationship between consumer services and satisfaction.

### Institution 3

Positive relationships were found between the categories of instructional services, counseling/exploration services, and consumer services and students' perceived satisfaction with school in general. The rationale for these relationships has been discussed with reference to Institutions 1 and 2. However it is significant to note that more services (10) at Institution 3 related to students perceived satisfaction with school in general with the greatest clustering (5) in the category of consumer services.

## Satisfaction with Support Services

Satisfaction with the specialized support services is, perhaps, most useful for each of the participating institutions in the monitoring of their own programs and services. Any comparisons between institutions are probably not useful except as directions for future research and

development activity. Figure 10 depicts the correlations that are significant for the number of semesters enrolled and grade point average as categorized by instructional, counseling/career exploration, modification and consumer services.

5. Is there a relationship between handicapped students' length of stay at specified community colleges in Missouri and their perceived satisfaction with VRE support services?

When correlated with length of stay, students' satisfaction with the services provided by the Vocational Resource Educator ranged across all groupings in Figure 10. The greatest clustering, however, fell within the category of consumer services for Institution 3, which directly affects students' day to day successes in the educational environment. These are the personalized and individualized services, those in which the handicapped student establishes a one to one relationship with a peer or professional. They are specific task relationships designed to meet a particular goal, i.e., tutoring, notetaking, interpreting, reading and writing. Reid (1979) has reported that handicapped students tend to persist or experience satisfaction in the environments which provide programs of assistance (special services). It appears that students enrolled at Institution 3 were more satisfied, in general the longer they were enrolled.

6. Is there a relationship between handicapped students' achievement as measured by GPA, and their perceived satisfaction with VRE support services?

Higher achievement, measured by GPA above 2.84 was related to decreased satisfaction with:

| | LOS | | | | | | GPA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Institution 1 | ± | Institution 2 | ± | Institution 3 | ± | Institution 1 | ± | Institution 2 | ± | Institution 3 | ± |
| Instructional Services | | | New Stud Orientataion | + | Inst Mod | - | Self Dir Learning | | Comm I | + | | |
| | | | | | | | | | NSO | + | | |
| Counseling/ Exploration Services | | | Voc Coun | + | Voc Coun | - | | | Job Place | + | | |
| | | | Car Exp | + | | | | | Voc Coun | + | | |
| | | | | | | | | | Car Exp | + | | |
| Modification Services | Equip Mod | + | | | | | | | Equip Mod | + | | |
| | | | | | | | | | Instr Mod | + | | |
| Consumer Services | | | Notetkr | + | | | Test Arr | | Notetkrs | - | | |
| | | | Reader | + | | | | | | | | |
| | | | Writer | + | | | | | | | | |
| | | | Tutors | + | | | | | | | | |

Figure 10: Relationships between LOS and GPA and satisfaction with support services at Institution 1, Institution 2 and Institution 3.

1. The instructional service cluster, specifically instructional modules and the self directed learning program
2. The counseling/career exploration cluster, specifically vocational counseling, and
3. The consumer cluster, specifically test arrangement and note-taking services.

The highest number of negative correlations found in any of the research questions were noted in these relationships. There appeared to be some change in the students' satisfaction with instructional, counseling/career exploration and consumer services, in terms of the relationship of higher GPA's. While no trend is apparent across schools, the perceived satisfaction may be related to the educational and personal preparedness of students who enter and persist in the community colleges of Missouri.

7. Is there a relationship between students' identified handicapping conditions and their perceived satisfaction with VRE support services?

In an analysis of the relationships between handicapping condition and satisfaction with the services provided by the Vocational Resource Educator, no significant differences were found at the .05 level. Further rationale has been provided in the discussion of question 3.

8. Is there a relationship between handicapped students' usage of VRE support services and their perceived satisfaction with those specialized services?

The relationship between the amount of usage and degree of satisfaction with that service is a critical issue to educators who are attempting to increase effectiveness of services. In an analysis of the

twenty-nine services, nineteen of those comparisons were significant. A further analysis indicated that of those nineteen significant correlations, eleven were items with a mean score in the extremely satisfied range (4.0 or above). Six of the remaining eight items were in the very satisfied range (4.0 or above). Six of the remaining eight items were in the very satisfied range (3.5 to 3.99). The remaining two items were between 3.2 and 3.4. This analysis indicated that most of the high usage/high satisfaction correlated items were viewed as very satisfactory services independent of the amount of usage. High satisfaction items (4.0 or above) that were not found to have significant correlations with high usage were:

1. Career Awareness (Institution 1)
2. Vocational Evaluation (Institution 1)
3. Instructional Modification (Institution 2)
4. Personal Assistance (Institution 2)
5. Access Program (Institution 2)
6. Interpreters (Institution 3)

Table 7 depicts the relationship between mean satisfaction scores and the significant satisfaction/usage correlations. An evaluation of these items suggest that they all may be items that are not used on a day to day basis. In addition, the personal assistance service was utilized by a large number of students. The lack of significant correlation between the use and satisfaction with interpreters is not discernible by an analysis of this data. It is possible, however, that only a few students from a relatively large hearing impaired population need extensive interpreter assistance.

Table 7: Comparison of High Mean Satisfaction Scores with High Usage and High Satisfaction

| Institution | Service | Mean Satisfaction | High Usage and High Satisfaction |
|---|---|---|---|
| 1 | Learning Center | 4.133 | x |
| | Instructional Modules | 4.071 | |
| | Vocational Counseling | 4.053 | |
| | Career Awareness | 4.5 | |
| | Job Placement | 3.25 | |
| | Vocational Evaluation | 4.375 | |
| | Tutors | 4.0 | x |
| 2 | Access Program | 4.1 | |
| | SDL | 3.4 | |
| | Vocational Counseling | 4.375 | x |
| | Instructional Modification | 4.333 | x |
| | Equipment Modification | 3.143 | |
| | Notetakers | 3.75 | x |
| | Test Arrangement | 3.875 | x |
| | Tutors | 3.429 | |
| | Personal Assistance | 4.375 | |
| 3 | Communications I | 4.053 | x |
| | Communications II | 4.2 | x |
| | NSO | 3.625 | |
| | Vocational Counseling | 4.0 | x |
| | Career Exploration | 3.35 | x |
| | Job Placement | 3.222 | x |
| | Instructional Modification | 4.1 | x |
| | Equipment Modification | 4.045 | x |
| | Notetakers | 3.914 | x |
| | Readers | 4.0 | x |
| | Tutors | 3.828 | x |
| | Writers | 3.687 | x |
| | Interpreters | 4.4 | |

## Recommendations

Recent research has cited the need to study the institutional environment to determine the perceived satisfaction of students in relation to persistence (Pantages and Creedon, 1978; Danuser, 1978; Lenning, Beal and Sauer, 1980). Additionally, the need to evaluate special programs has been well documented (Rawlings and Trybus, 1976; Reid, 1979). The present investigation has verified the feasibility of evaluating the satisfaction of handicapped students enrolled in community colleges and has pointed some directions for investigation. The following recommendations are presented to assist in identifying these research needs.

1. A sample of handicapped students should be compared to a sample of non handicapped students to determine the possible differences in perceived satisfaction with selected factors in the environment between the two groups.

2. A sample of handicapped persisters should be compared to a sample of handicapped non persisters to determine the possible differences in perceived satisfaction with the campus environment between the two groups.

3. A sample of handicapped persisters should be compared to a sample of handicapped non persisters to determine the possible differences in perceived satisfaction with VRE support services between the two groups.

4. A sample of handicapped persisters should be compared to a sample of handicapped non persisters to determine the difference in usage of VRE support services between the two groups.

5. A study designed to analyze those students who do not return to school for the fall semester, 1982, should be conducted to determine possible predictive trends in the areas of campus satisfaction and VRE satisfaction and usage.

6. Additional research is needed to identify other environmental factors which may be related to handicapped students' satisfaction and persistence at the institutions under investigation.

7. A reexamination of students' usage and satisfaction with equipment and instructional modification is needed to determine the cost effectiveness of those services.

8. Preservice and inservice training sessions should be conducted by the VRE at each campus to involve faculty in procedures for improving the quality of their contacts with students.

9, This study should be replicated at the participating institutions as the numbers of students increase and at other institutions as the VRE model is expanded.

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# APPENDIX A

## LISTING OF ADVISORY COMMITTEE MEMBERS

## Advisory Committee

Dean Al Sullivan
Mineral Area College
Flat River MO 63601

Ms. Margaret Scobee
Mineral Area College
Flat River, MO 63601

Ms. Iva Presberry
SLCC at Florissant Valley
3400 Pershall Road
Ferguson, MO 63135

Mr. Pat Sellner
SLCC at Florissant Valley
3400 Pershall Road
Ferguson, MO 63135

Dr. Richard Donnelly
SLCC at Meramec
11333 Big Bend Boulevard
St. Louis, MO 63122

Ms. Maggie Glad
SLCC at Meramec
11333 Big Bend Boulevard
St. Louis, MO 63122

Dr. Carl Cameron
UMC
Columbia, MO 65211

Dr. Walter Hunter
UMC
Columbia, MO 65211

Ms. Carol Kay
UMC
Columbia, MO 65211

APPENDIX B

PARTICIPANT INFORMATION/RESPONSE PACKAGE

MINERAL AREA COLLEGE
FLAT [illegible] 63601
Phone (314) 431-4593

April 19, 1982

We need your help! Special Needs Services is conducting a study to determine students' satisfaction with the campus environment at Mineral Area College. We are concerned about students and their attitudes toward the academic and social aspects of our campus. As a result of this study we hope to be able to improve support services and programs at MAC.

Please join us for a donut and a cup of coffee on Monday, May 3, 1982, at 10:00 a.m. in room A101. At that time we would like you to complete a questionnaire expressing your opinions regarding our campus. Your response should take approximately 20 minutes. Rest assured that all information will remain confidential and that individual names will not be considered part of this study.

Please use the enclosed form to indicate your willingness to participate in our study. An envelope has been provided for your convenience.

We're looking forward to seeing you on May 3rd. Please feel free to contact me if I can answer any additional questions. Thank you for your help.

Sincerely,

Margaret Scobee
Special Needs Services

MMS:saw

Enclosures (2)

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Equal Opportunity And Affirmative Action Institution

Release of Information

___Yes, I will participate in the study by attending the meeting scheduled for_____and I will complete the questionnaire.

I understand that my grade point average will be used as part of this study.

I understand that all information will remain strictly confidential and that my name will not be released as part of this study and I will not be identified in any way.

_____ _____

Signature Date

St. Louis Community College
at Meramec

11333 Big Bend Boulevard
St. Louis, Missouri 63122
Telephone 314/966-7500

April 28, 1982

Dear

We need your help! The Office of Student Services is conducting a study to determine students' satisfaction with the campus environment at Meramec. We are concerned about students and their attitudes toward the academic and social aspects of our campus. As a result of this study we hope to be able to improve support services and programs here.

Please join us for refreshments on May 5th or 6th. Come between 2:00 and 3:30 p.m. on Wednesday, May 5th or between 9:00 and 10:30 p.m. on Thursday, May 6th in room No. 216 of the Library building. Ms. Barbara Chesman of the Library will be there to meet with you. At that time we would like to complete a questionnaire expressing your opinions regarding our campus. Your response should take approximately 10 minutes. Rest assured that all information will remain confidential and that individual names will not be considered part of this study.

Please use the enclosed form to indicate your willingness to participate in our study. An envelope has been provided for your convenience.

We're looking forward to seeing you on May 5th or 6th. Please feel free to contact me if I can answer any additional questions. Thank you for your help.

Sincerely,

Maggie Glad

Maggie Glad

pl

Enclosure



St. Louis Community College is an equal opportunity and affirmative action employer.

Release of Information

___Yes, I will participate in the study by attending the meeting scheduled for_____and I will complete the questionnaire.

I understand that my grade point average will be used as part of this study.

I understand that all information will remain strictly confidential and that my name will not be released as part of this study and I will not be identified in any way.

_____ Signature

_____ Date

St. Louis Community College
at Florissant Valley

3400 Pershall Road 112
St. Louis, Missouri 63135

April 19, 1982

Dear _____

We need your help! The Office of Project Ability is conducting a study to determine students' satisfaction with the campus environment at St. Louis Community College at Florissant Valley. We are concerned about students and their attitudes toward the academic and social aspects of our campus. As a result of this study we hope to be able to improve support services and programs at Florissant Valley.

Please join us for a donut and a cup of coffee on May 3rd or 4th at the Communications Building in room C-135. At that time we would like you to complete a questionnaire expressing your opinions regarding our campus. Your response should take approximatly 20 minutes. Rest assured that all information will remain confidential and that individual names will not be considered part of this study.

Please use the enclosed form to indicate your willingness to participate in our study. An envelope has been provided for your convenience.

We're looking forward to seeing you on the May 3rd or 4th. Please feel free to contact me if I can answer any additional questions. Thank you for your help.

Sincerely,

Iva V. Presberry

Iva V. Presberry, Counselor
PROJECT ABILITY
Resource Program for Vocational Students
with Disabilities

ml



St. Louis Community College is an equal opportunity and affirmative action employer

Release of Information

___Yes, I will participate in the study by attending the meeting scheduled for_____and I will complete the questionnaire.

I understand that my grade point average will be used as part of this study.

I understand that all information will remain strictly confidential and that my name will not be released as part of this study and I will not be identified in any way.

_____ _____

Signature Date

# APPENDIX C

# INSTRUMENTATION

Mineral Area College

CONFIDENTIAL QUESTIONNAIRE

Please indicate your Social Security number. __ __ __/ __ __/ __ __ __ __.

Please answer the following questions as they apply to your experience at Mineral Area College.

A. In which semesters were you enrolled at Mineral Area College?

___Before Fall, 1980

___Fall, 1980

___Winter, 1981

___Summer, 1981

___Fall, 1981

___Winter, 1982

B. Were you a part-time or full-time student during this period? (Part-time is less than 12 hours and full-time is 12 hours or more.)

| | | |
|---|---|---|
| ___Fall, 1980 | ___Full-Time | ___Part-Time |
| ___Winter, 1981 | ___Full-Time | ___Part-Time |
| ___Summer, 1981 | ___Full-Time | ___Part-Time |
| ___Fall, 1981 | ___Full-Time | ___Part-Time |
| ___Winter, 1982 | ___Full-Time | ___Part-Time |

C. Please check the column which describes your satisfaction with the following aspects at Mineral Area College.

Answer 1-6 in terms of your satisfaction with your <u>program</u> at Mineral Area College.

Answer 7-12 in terms of your satisfaction with your <u>interaction with others</u> at Mineral Area College.

Answer 13-16 in terms of your satisfaction with the <u>cultural and social atmosphere</u> at Mineral Area College.

Answer 17-27 in terms of your satisfaction with the <u>general environment</u> at Mineral Area College.

| | | Degree of Satisfaction | | | | | |
|---|---|---|---|---|---|---|---|
| | | Not Satisfied | Little | Moderate | Much | Great | NA |
| Program | 1. Course content in program | | | | | | |
| | 2. Teaching in program | | | | | | |
| | 3. Relevance of program to your career | | | | | | |
| | 4. Academic/career advising | | | | | | |
| Interaction with Others | 5. Amount of contact with teachers | | | | | | |
| | 6. Quality of contact with teachers | | | | | | |
| | 7. Teacher attitudes towards students | | | | | | |
| | 8. Campus friendliness | | | | | | |
| | 9. Staff (secretarial, librarian, custodial) attitudes towards students | | | | | | |
| | 10. Intellectual stimulation | | | | | | |
| | 11. Quality of students | | | | | | |
| | 12. Library services | | | | | | |
| Cultural & Social | 13. Cultural opportunities | | | | | | |
| | 14. Recreational Facilities | | | | | | |
| | 15. Extra curricular opportunities | | | | | | |
| | 16. Social opportunities | | | | | | |
| General Environment | 17. Scheduling of classes | | | | | | |
| | 18. Grading system | | | | | | |
| | 19. Rules and regulations | | | | | | |
| | 20. Pre-enrollment information | | | | | | |
| | 21. Financial Aid opportunities | | | | | | |
| | 22. Off campus employment | | | | | | |
| | 23. On campus employment | | | | | | |
| | 24. Location | | | | | | |
| | 25. Cost | | | | | | |
| | 26. Enrollment size | | | | | | |
| | 27. School, in general | | | | | | |

D. Mineral Area College provides a variety of special services.

In Part 1 check the box which describes your satisfaction with the serivces provided during this semester.
In Part 2 check the box which describes your usage of the services provided during this semester.

| Part 1 — Satisfaction with services provided by Mineral Area College. | | | | | | | Part 2 — Usage of services provided by Mineral Area College. (HPW = Hours Per Week) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | Little | Moderate | Much | Great | Does Not Apply | | None 0 HPW | Little 1-2 HPW | Moderate 3-4 HPW | Much 5-6 HPW | Great 7-8+ HPW | Does Not Apply |
| | | | | | | . . Learning Center . . | | | | | | |
| | | | | | | . Instructional Modules . | | | | | | |
| | | | | | | . . Career Awareness. . . | | | | | | |
| | | | | | | . . . Job Placement. . . | | | | | | |
| | | | | | | . Vocational Counseling . | | | | | | |
| | | | | | | . . . . Tutors . . . . . | | | | | | |
| | | | | | | Vocational . Evaluation Center. . . | | | | | | |

Enabler Program

CONFIDENTIAL QUESTIONNAIRE

Please indicate your Social Security number. __ __ __/__ __/__ __ __ __.

Please answer the following questions as they apply to your experience at St. Louis Community College at Meramec.

A. In which semesters were you enrolled at SLCC at Meramec?

__Before Fall, 1980

__Fall, 1980

__Winter, 1981

__Summer, 1981

__Fall, 1981

__Winter, 1982

B. Were you a part-time or full-time student during this period? (Part-time is less than 12 hours and full-time is 12 hours or more.)

| | | |
|---|---|---|
| __Fall, 1980 | __Full-Time | __Part-Time |
| __Winter, 1981 | __Full-Time | __Part-Time |
| __Summer, 1981 | __Full-Time | __Part-Time |
| __Fall, 1981 | __Full-Time | __Part-Time |
| __Winter, 1982 | __Full-Time | __Part-Time |

C. Please check the column which describes your satisfaction with the following aspects at St. Louis Community College at Meramec.

Answer 1-6 in terms of your satisfaction with your <u>program</u> at SLCC at Meramec.

Answer 7-12 in terms of your satisfaction with <u>your interaction with others</u> at SLCC at Meramec.

Answer 13-16 in terms of your satisfaction with the <u>cultural and social atomosphere</u> at SLCC at Meramec.

Answer 17-27 in terms of your satisfaction with the <u>general environment</u> of SLCC at Meramec.

| | | Degree of Satisfaction | | | | | |
|---|---|---|---|---|---|---|---|
| | | Not Satisfied | Little | Moderate | Much | Great | NA |
| Program | 1. Course content in program | | | | | | |
| | 2. Teaching in program | | | | | | |
| | 3. Relevance of program to your career | | | | | | |
| | 4. Academic/career advising | | | | | | |
| Interaction with Others | 5. Amount of contact with teachers | | | | | | |
| | 6. Quality of contact with teachers | | | | | | |
| | 7. Teacher attitudes towards students | | | | | | |
| | 8. Campus friendliness | | | | | | |
| | 9. Staff (secretarial, librarian, custodial) attitudes towards students | | | | | | |
| | 10. Intellectual stimulation | | | | | | |
| | 11. Quality of students | | | | | | |
| | 12. Library services | | | | | | |
| Cultural & Social | 13. Cultural opportunities | | | | | | |
| | 14. Recreational Facilities | | | | | | |
| | 15. Extra curricular opportunities | | | | | | |
| | 16. Social opportunities | | | | | | |
| General Environment | 17. Scheduling of classes | | | | | | |
| | 18. Grading system | | | | | | |
| | 19. Rules and regulations | | | | | | |
| | 20. Pre-enrollment information | | | | | | |
| | 21. Financial Aid opportunities | | | | | | |
| | 22. Off campus employment | | | | | | |
| | 23. On campus employment | | | | | | |
| | 24. Location | | | | | | |
| | 25. Cost | | | | | | |
| | 26. Enrollment size | | | | | | |
| | 27. School, in general | | | | | | |

D. The Enabler Program provides a variety of serivces.

In Part 1 check the box which describes your satisfaction with the services provided during this semester.
In Part 2 check the box which describes your usage of the services provided during this semester.

| Part 1 Satisfaction with services provided by the Enabler Program | | | | | | | Part 2 Usage of services provided by the Enabler Program | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | Little | Moderate | Much | Great | Does Not Apply | | None 0 HPW | Little 1-2 HPW | Moderate 3-4 HPW | Much 5-6 HPW | Great 7-8+ HPW | Does Not Apply |
| | | | | | | . . . . Access Meramec . . . . | | | | | | |
| | | | | | | . Self Directed Learning (SDL) . | | | | | | |
| | | | | | | . . . Vocational Counseling. . | | | | | | |
| | | | | | | . . . Equipment Modification . . | | | | | | |
| | | | | | | . . . Instructional Modification. | | | | | | |
| | | | | | | . . . . Notetakers . . . . | | | | | | |
| | | | | | | . . . . . Tutors. . . . . | | | | | | |
| | | | | | | . . . Test Arrangement . . . | | | | | | |
| | | | | | | . . . Personal Assistance . . . through Nurses Office | | | | | | |

Project Ability
CONFIDENTIAL QUESTIONNAIRE

Please indicate your Social Security number. __ __ __/__ __/__ __ __ __ __.

Please answer the following questions as they apply to your experience at St. Louis Community College at Florissant Valley.

A. In which semesters were you enrolled at SLCC at Florissant Valley?

___Before Fall, 1980

___Fall, 1980

___Winter, 1981

___Summer, 1981

___Fall, 1981

___Winter, 1982

B. Were you a part-time or full-time student during this period? (Part-time is less than 12 hours and full-time is 12 hours or more.)

| | | |
|---|---|---|
| ___Fall, 1980 | ___Full-Time | ___Part-Time |
| ___Winter, 1981 | ___Full-Time | ___Part-Time |
| ___Summer, 1981 | ___Full-Time | ___Part-Time |
| ___Fall, 1981 | ___Full-Time | ___Part-Time |
| ___Winter, 1982 | ___Full-Time | ___Part-Time |

C. Please check the column which describes your satisfaction with the following aspects at St. Louis Community College at Florissant Valley.

Answer 1-6 in terms of your satisfaction with your <u>program</u> at SLCC at Florissant Valley.

Answer 7-12 in terms of your satisfaction with your <u>interaction with others</u> at SLCC at Florissant Valley.

Answer 13-16 in terms of your satisfaction with the <u>cultural and social atmosphere</u> at SLCC at Florissant Valley.

Answer 17-27 in terms of your satisfaction with the <u>general environment</u> at SLCC at Florissant Valley.

| | | Degree of Satisfaction | | | | | |
|---|---|---|---|---|---|---|---|
| | | Not Satisfied | Little | Moderate | Much | Great | NA |
| Program | 1. Course content in program | | | | | | |
| | 2. Teaching in program | | | | | | |
| | 3. Relevance of program to your career | | | | | | |
| | 4. Academic/career advising | | | | | | |
| Interaction with Others | 5. Amount of contact with teachers | | | | | | |
| | 6. Quality of contact with teachers | | | | | | |
| | 7. Teacher attitudes towards students | | | | | | |
| | 8. Campus friendliness | | | | | | |
| | 9. Staff (secretarial, librarian, custodial) attitudes towards students | | | | | | |
| | 10. Intellectual stimulation | | | | | | |
| | 11. Quality of students | | | | | | |
| | 12. Library services | | | | | | |
| Cultural & Social | 13. Cultural opportunities | | | | | | |
| | 14. Recreational Facilities | | | | | | |
| | 15. Extra curricular opportunities | | | | | | |
| | 16. Social opportunities | | | | | | |
| General Environment | 17. Scheduling of classes | | | | | | |
| | 18. Grading system | | | | | | |
| | 19. Rules and regulations | | | | | | |
| | 20. Pre-enrollment information | | | | | | |
| | 21. Financial Aid opportunities | | | | | | |
| | 22. Off campus employment | | | | | | |
| | 23. On campus employment | | | | | | |
| | 24. Location | | | | | | |
| | 25. Cost | | | | | | |
| | 26. Enrollment size | | | | | | |
| | 27. School, in general | | | | | | |

D. Project Ability provides a variety of services.

In Part 1 check the box which describes your satisfaction with the services provided during this semester.
In Part 2 check the box which describes your usage of the services provided during this semester.

| Part 1: Satisfaction with services provided by Project Ability | | | | | | | Part 2: Usage of services provided by Project Ability (HPW = Hours Per Week) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not Satisfied | Little | Moderate | Much | Great | Does Not Apply | | None 0 HPW | Little 1-2 HPW | Moderate 3-4 HPW | Much 5-6 HPW | Great 7-8+ HPW | Does Not Apply |
| | | | | | | Communications I | | | | | | |
| | | | | | | Communications II | | | | | | |
| | | | | | | Career Exploration | | | | | | |
| | | | | | | Job Placement | | | | | | |
| | | | | | | Vocational Counseling | | | | | | |
| | | | | | | New Student Orientation | | | | | | |
| | | | | | | Equipment Modification | | | | | | |
| | | | | | | Instructional Modification | | | | | | |
| | | | | | | Interpreters | | | | | | |
| | | | | | | Notetakers | | | | | | |
| | | | | | | Readers | | | | | | |
| | | | | | | Tutors | | | | | | |
| | | | | | | Writers | | | | | | |

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